# The Iron Ag

# A Review of the Hardware, Iron and Metal Trades.

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process being continuous and no time being

puddling furnaces was found in the strength of the labor unions, who would resist to the utmost any attempt to cheapen the cost of labor per ton of product, whether that cheapening were effected by the employment of men at lower wages or of fewer

men.

But notwithstanding these, which may be called the theoretical obstructions to the improvement of the puddling furnace, they have been much less serious than the practical obstruction, which has only been learned by costly experience, namely that it is exceedingly difficult to build and to operate a mechanical puddling furnace which shall work so successfully that the losses consequent upon imperfectly worked iron, upon expensive and frequent repairs, upon stoppages and irregularity of working of furnaces, and upon greater interest on cost of plant, are not found at the end of a year's running to have overbalanced the saving in of plant, are not found at the end of a year's running to have overbalanced the saving in fuel er in wages of workmen. This has been the real trouble with mechanical pud dling furnaces. With but rare exceptions, they have proved commercial failures. They did not for a long period of time make iron cheaper or better than the old-fashioned furnaces. To this rule even the Danks furnace, which is certainly a success in two estables. cheaper or better than the old-fashioned furnaces. To this rule even the Danks furnace, which is certainly a success in two establishments in the United States, is only a partial exception. The failures with it have perhaps been more expensive than with any other mechanical puddling furnace. The writer well remembers that about five years ago he mentioned to a gentleman, who he was not then aware knew anything of the Danks furnace, some facts learned was not then aware knew anything of the Danks furnace, some facts learned concerning the results obtained from it in Pittsburgh. The gentleman replied: "I don't want to hear anything about the Danks furnace. I have had \$175,000 worth of experience in it, and don't want any more." That reply would have confirmed most iron men in the belief not only that the furnace was a failure, but that it always would be; but at the very time that the statement was made the furnace was running successfully at the works of Graff, Bennett & Co., in Pittsburgh, had been so running for some years, and has been running ever since, except when stopped on account of a strike or by the burning down of the mill

In a paper by Mr. John I Williams, then manager of Graff Bennett & Co.'s mill, published in the Metallurgical Review for Sep tember, 1877, he uses the following words concerning the tribulations which the Danks furnace had undergone: "Chattanooga, Indianapolis and Cincinnati, as well as all other places where they have been tried, have cast them to the door with many curses So sick and sore at heart are those who tried them that even now they would not believe, even though one rose from the dead to tes-tify that there is good in them. It has re-

The Danks Puddling Furnace In Cincinnati.

Mr. William Kent, of Pitchurgh, in recent issue of the Dufeting of the Aurignatic concerning the particulars concerning the Danks, the server and achieves and a particular of the surface of a revolution in the art of puddling, by which the severe and exhausting manual labor required in a transmitted manufacturers of the world were considerably excited over the prospect of a revolution in the art of puddling, by which the severe and exhausting manual labor required in a transmitted manufacturers of the world were considerably excited over the prospect of a revolution in the art of puddling, by which the severe and exhausting manual labor required in a transmitted manufacturers of the world were considerably excited over the prospect of a revolution in the art of puddling, by which the severe and exhausting manual labor required in a transmitted manufacture is and shape of a flour barrel, by the diling furnaces, but one—the invention of Mr. Samuel A. Danks, of Cincinnati, puddling furnaces, but one—the invention of Mr. Samuel A. Danks, of Cincinnati, puddling furnaces and the manufacturer with it there have been so many failures that, in the minds of many, it has been relegated to the limbo of abandones in the product about of populars and the popular and the p

Fig. I.—Perspective View.

THIRTY-TON STEAM CRANE, BUILT BY MESSRS. GEORGE BUSSELL & CO., MOTHERWELL, ENGLAND,

svan though one rose from the dead to testify that there is good in them. It has readen to a hammered to about 7 inches squared some nerse and backbone to go on against the gloony outlook that rose before the meriand and rolled to and an advanced and rolled to an advanced and rolled to an another out. The general sentiment of the trade, necuraged by opinions from workmen and least and longthwise in alternate layer of about 3½ inches by 1 inch, and piled crosswise and longthwise in alternate layer of about 3½ inches by 1 inch, and piled crosswise and longthwise in alternate layer of about 3½ inches by 1 inch, and piled crosswise and longthwise in alternate layer and longthwise in alternate layers and the same as that in the formation of the success reached and sensessary to allow the success are can be day, and in view of the success cases at this late day, and in view of the success cases at the subject of the sunce reached and hammered to about 7 inches square. They are then reheated and rolled to a bout 3½ inches by 1 inch, and piled crosswise and longthwise in alternate layers and the success and the success and the success are can be another to the success and the success and in view of the success are can be day, and in view of the success are ade to a day, and in view of the success are ade to a day, and in view of the success are ade to a day, and in view of the success and a day and in view of the success are ade to a day, and in view of the success are ade to a day, and in view of the success and a day and in view of the success and a day, and in view of the success and a day, and in view of the success and the success and in view of the success and the success and in view of the success and the success

process being continuous and no time being required for it to stand and settle. The process essentially consists in chemically purifying the water, instead of mechanically, as in the ordinary filtration. In practice a small jet of lime water is introduced into a portion of the water to be softened, and the two are blended in a mixer, whence they flow into a softening tank into which they flow into a softening tank, into which the bulk of the water is conducted. From this tank the water with the lime in suspension flows into the Atkins rotary disk filters, in which the solid particles are all arrested by an ingenious system of cloth-covered disks placed within a tank, and which present a very large area of filtration within a very small compass. The purified and softened water is conducted from the filters to the storage reservoirs ready for use. The effect of the lime water is not only to purify and soften the water in bulk, but to cause any clayey matters that may be held in suspension to coagulate, thus facilitating their sion flows into the Atkins rotary disk filters. pension to coagulate, thus facilitating their removal. The water passes from the out side to the inside of the filters through the cloth-covered disks, the surfaces of which become in time coated with a deposit consisting of carbonate of lime and impurities. These surfaces are quickly cleaned by means of a series of brushes, which are brought into contact with the disks. The brushes, which are fixed on a spindle, are rapidly revolved, as are also the disks, but in opposite directions, the result being that in a few minutes the filters are cleaned and ready for work again. The system has been suc-cessfully applied to private water supplies in cessurily applied to private water supplies in several instances, notably at the residence of the Duke of Richmond, at Goodwood, and at that of Mr.W. H. Smith, Member of Parlia-ment, near Henley. The first application of the system to a public water supply is that of the Henley-on-Thames water works, which the Henley-on-Thames water works, which were recently opened. It was introduced there by the engineer to the water company, Mr. Jabez Church, in consequence of the extreme hardness of the water which is to be obtained from the chalk, and which is normally of about 19 degrees of hardness. After treatment, however, by the Atkins process the hardness is reduced to nearly four degrees, which means a beautifully soft water. The apparatus is calculated to soften and purify rather more than 100,000 soft water. The apparatus is calculated to soften and purify rather more than 100,000 gallons of water per working day of 10 hours. The softening apparatus was supplied by the Atkins Water-Softening and Purifying Company, of No. 62 Fleet street, London. The system has been tried on the London and Brighton Railway by Mr. Stroudley, the locomotive superintendent, who is having an apparatus put up to soften and purify between 300,000 and 400,000 gallons of water per day for the supply of the boilers at the company's locomotive and carboilers at the company's locomotive and car-riage works at Brighton. The practical value of the system is, therefore, established as regards the treatment of waters contain-ing the carbonate of lime.

# A Thirty-Ton Steam Crane.

The steam crane which we illustrate was manufactured by the George Russell Co., for the Town Council of Renfrew, England. It is of a class not very familiar to our readers, and possesses many decidedly novel features. The nearest approach to anything of the sort we have seen in this country are the heavy steam masting shears on the docks of our large iron ship builders. These, however, confine their operations to simply lifting in and out of a vessel in a single plane. The crane that we illustrate commands, it will be seen, a very wide range with its jib. Steam is carried through the pivot, and in this way the boiler is taken off from the engine platform and placed at the foot of one of the stays. The following description is taken from Engineering, to which we are indebted for the engravings: The steam crane which we illustrate was

from Engineering, to which we are indebted for the engravings:

The maximum working load is 30 tons, lifted at a radius of 25 feet. The jib, mast, diagonal and horizontal stays are of malleable iron, built with plates and angles; the jib and mast being stiffened by a double set of lattice stays. The jib is 54 feet long from center of pin at bottom to center of ton chain pulls. Part of the product is made into boiler plate, and for this the operation is somewhat different. The squeezed blooms, instead of being rolled at once, are taken to a hammer and hammered to about 7 inches square.

The area then repeated and rolled to a ham

The area then repeated and rolled to a ham

In a long record of tests of iron made for the fact that the Cinternation of the part of the center of top chain pulley. The distance from center of top chain pulley. The distance f

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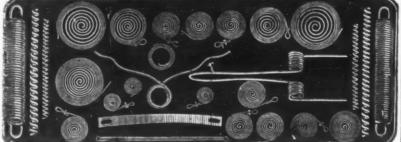
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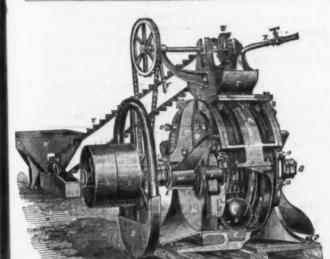
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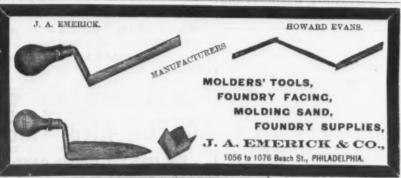
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radii. Its action is shown by the annexed diagram. A fixed stud in jib A has a toothed rack bar attached, gearing into a small pinion fixed on the back of a 3-foot dial. pinion fixed on the back of a 3-foot dial. The dial is free to revolve on the fixed stud B on mast of crane. There are brass shaped plates at proper intervals round its circumference, and the fixed pointer C indicates the radius in feet and load in tons. The rack is long enough to allow the jib to be lowered horizontally and elevated again without coming out of gear. The rack and pinion are wrought iron, without any clearance in the teeth so as to indicate correctly. The purpose for which this crane has been

The purpose for which this crane has been erected is to place boilers, machinery, &c., in vessels, and since its completion it has been in constant use at this work; and also to ship coals For this latter purpose it is provided with a wrought-iron cradle to lift the railway wagons, and an improved tipping gear worked by the driver on platform. There is throughout the crane an ample margin of strength for the work, steel both in castings and forgings being freely used.

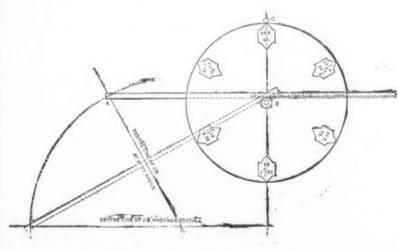
## Light Standard Gauge Road

The Royal Prussian Institutes for Testing Materials of Construction at Berlin.

amped at the Vienna meeting of the British Iron and Steel Institute, was that of Dr. H. Wedding, of Berlin, entitled as above, and of which we submit the following abstract:

The controversies between the claims of and and steel are and convention of the producers and convention.

producers and consumers of manufactured products are in no case more severe than in that of the materials of construction, even should there be no doubt as to the existence of the best and most honest purpose on both sides. The producer will always choose the cheapest and best mode of manufacturing in order to get a material which answers the purpose of its application, while the consumer, who mostly bears a considerable responsibility for the safety of the public, is indifferent to the patched of production and indifferent to the method of production, and only cares that the quality of the material be equal to all requirements, even under the most unexpected conditions. It has, there-fore, always been necessary to make a compromise between the two parties, which en-ables the producer to employ rational pro-cesses, and gives to the consumer a full war-The State of Maine has a 20-mile standard gauge length of railroad, which apparently has all the advantages ever claimed by the narrow-gauge people, with the additional one of being standard gauge, having roomy cars and being capable at any time of transformation into a road of standard weight. The road leaves Milo, on the Bangor and Piscata-



Thirty-Ton Steam Crane. - Fig. 2 .- Plan of Crane,

quis Railroad, and runs to the Katahdin Iron Works, a distance of 20 miles. There are four bridges on the road, having spans of 160 and 150 feet, and two of 50 feet each. The road is fairly ballasted with good gravel. There are two engines, two passenger cars, one baggage car, a snow plow, ten box and twenty flat cars. There are good depots, two turntables, water tanks, wood sheds, repair shops, and the whole cost of the road was only \$200,000. There are only ten stockholders. The road runs through Brownsville, where it strikes the famous slate quarries the logs themselves were only too plainly visible. The railroad opens a charming coun-try, and will probably be one of the very best investments of the day for those fortu-nate enough to possess stock.

# The Value of Coal Tar.

Before the year 1856, the value of coal-tar in London was hardly one cent per gallon, and in most of the English country towns gas makers were glad to give it away. Up to that time but small quantities of benzine, naphtha and creosote oils had been distilled. In 1856, the discovery of the mauve or aniline purple, gave a great impetus to the coaltar trade. At the present time, the color trade industry practically uses all the benzine and most of the naphtha, all the anthracine and a portion of the naphthaline, resulting from the distillation of coal-tar. It is estimated that the value of the coloring matter so produced is upward of \$16,000,000 in England alone. Over 1,000,000 tons of sulphate of ammonia are made, which is worth over \$100 per ton. It is said that the by-products of the English gas works exceed the value of the coloring. Regarding the resulting flower in the time the color of the English gas works exceed the value of the coloring. Regarding the resulting the strength of iron and analyses in both directions. Regarding the resulting the strength of the coloring.

at that place. It is laid through a good country for traffic, and as the iron works furnish from 4000 to 5000 tons down freight, and nearly as much up in the way of supplies, it is likely to be a paying property.

The rails are second-hand, weighing from 45 to 56 pounds per yard, and were bought. on a paying property. The rails are second-hand, weighing from 45 to 56 pounds per yard, and were bought at the price of old rails. We well remember the time when six, eight, twelve and 14 mule teams were the only means of conveying the the time when six, eight, twelve and 14 mule teams were the only means of conveying the slate from Brownsville or the iron from the Katahdin Iron Works to Bangor. The distance, we believe, was about 40 miles, and it was no uncommon thing in winter to see stacks of pig iron scattered all along the road, where teams, on account of the heavy roads, had been obliged to unload and stack a portion of the iron with which they started. A portion of the old road was of the most abominable character, and how wagons or teams stood it is unaccountable. We know of many miles which were laid in corduroy across swamps, and though a pretense of covering the logs with earth had been made, the logs themselves were only too plainly fluences its mechanical properties, and so to be certain that if a piece of a certain chemical composition answers the test imposed by the consumer, all others of the same chemical composition will do the same. These circum-stances furnish the reason why, during the last 10 years, institutes have been established which examine all such questions, and give Before the year 1856, the value of coal-tar It is clear that such institutes can only

of the English gas works exceed the value of the coalused by \$15,000,000. It is to this wonderful economy in the utilization of the waste products that the English cheap gas is due. A gas engineer from this country a few years ago, spoke of English gas works as being works for the production of coal tar, ammonia liquor, &c., which sold their gas as a by-product at little more than the cost of producing it. Anxious as the gas makers are to increase the consumption in order to make more profitable portions of the business larger, it seems strange that they have not more generally taken measures for encouraging consumption. In many places the application of gas for heating purposes is difficult, in consequence of the reduced pressure on the mains during the day time. In fact, this pressure is so low as to barely prevent the indraft of atmospheric air into the pipes.

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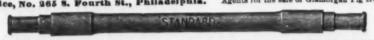
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done can be ranged under the following four divisions: 1. What must be the condition of the sample to allow of a true conclusion as to the nature of the material from which it is taken? 2. In what manner must the sample be tested in order to give a result which is, under given circumstances, always certain? 3. In what connection does the chemical constitution stand to the mechanical qualities, and what is the relation of the different mechanical qualities among each other? 4. What differences, chemical as well as mechanical, are found in the qualities of test pieces of a material, which in practice has not met the demands of the consumer?

### I .- CONDITIONS OF SAMPLES.

The delivery of good samples is necessary, The delivery of good samples is necessary, to permit of true conclusions from the results of the tests. As regards the samples for chemical examination particularly, care in selecting them stands in the first place, and therefore the delivery of larger pieces is demanded, as well as of powdered average samples, so that the data may be checked as far as possible. The judicious selection of samples from such pieces, the mechanical qualities of which can be judged of only by their chemical composition, is of the greatest importance; as an instance: Armor-plates often show a difference of chemical composition in the second decimal, accompanied by tion in the second decimal, accompanied by an essential difference in their resistance to the action of projectiles. It is clear that the smallest remainder of gunpowder in a shot hole where the sample is taken gives an essential difference in the contents of carbon, not to speak of the smallest particle of straw. The surest way is always to take the sample, if it cannot be done in the institute, under the survey of an officer of the institute. In the survey of an officer of the institute. In quite another direction the selection of samples of the testing of resistance, &c., is difficult. It is true that under equal circumstances the dimension of the cross section of a sample has only a small influence on the the tensile strength, the contraction and the elongation; but the great difficulty lies in the creating of such equal circumstances. The ingot iron, or steel, which is at present mostly used for purposes of construction, frequently shows blisters, which interfere with the homogeneity of the material, and if produced with the addition of spiegeleisen or ferromanganese, and not very carefully mixed.

ced with the addition of spiegeleisen or ferromanganese, and not very carefully mixed, it shows even greater want of homogeneity than welded or puddled iron.

The producers of railway material have, with good right, opposed stipulations which are founded on a system of sampling, the very foundation of which seems so uncertain that two pieces of iron taken from the immediate neighborhood of each other in the same bar give quite different results. It may be remarked that in this direction the transitions of the Prussian railways from priyate control of the Prussian railways from private control to the hands of the Government has produced a favorable influence, the great majority of Boards of Railway Directions having thus agreed upon the conditions which should be adopted in specifying for the delivery of railway material. It is hardly necessary to observe that the manner in which the iron out of which the samples are taken has been worked is also a matter of vital importance, as the beautiful experiments of Mr. Brauns, of Dortmund, show conclusively. These experiments prove that a smaller or traction results from a more thorough working of the iron, in consequence of which two pieces of iron, alike in chemical composition, may give quite different results on being tested with reference to their tenacity. The experience gained on this subject ought to have an important influence on the work of the institute dealing with the mechanical tests. With regard to the samples of building tests. With regard to the samples of building materials in compact pieces, the perfect parallelism of the surfaces which are pressed is the principal condition demanded, and, if not so delivered, grinding with diamonds in the institute itself is resorted to. The necessary size of grain of powders, &c., is easily accorded for in the institute.

provided for in the institute. 2. - METHOD OF TESTING

In all cases, and in all the institutes, the node of testing the samples is such as to obmode of testing the samples is such as to obtain results as certain as possible. The methods of analysis are therefore controlled continually in the Chemical Institute, and these, as well as the apparatus employed, are corrected and improved as occasion arises. The sources of errors, as well as their possible extent, are determined accurately. The determination of single alegants. their possible extent, are determined accurately. The determination of single elements, such as carbon, phosphorus, sulphur, &c., is improved in different directions, and the superintendent of the Institute has, with indefatigable zeal, found out the smallest sources of error. The cost of apparatus and of reagents is not of much importance, but it is necessary to seek for methods which enable determinations to be made with sufficient quickness to keep abreast of the requirements of practice. Referring to mechanical testing, the first care is, that the machinery which is used for the determination of tensile strength, contraction, and machinery which is used for the determination of tensile strength, contraction, and elongation be in itself sufficiently accurate to exclude any liability to errors, and particularly that the experiments are made under equal conditions. With these objects the machines employed (those of Werder and Wedding) are continually improved and perfected. To make sure that the bars which are to be tested are accurately the fected. To make sure that the bars which are to be tested are accurately held in position, couplings have been introduced, by the use of which the strain must take the direction of the axis of the bar. The weight is applied equally, and the time of trial is regulated; apparatus designed to furnish self-registered diagrams, are in course of construction, after the system of Professor Tetmajer, of Zurich. In the testing of building materials, the method of examining cements is brought to a high degree of exactitude, so that different samples can be compared with certainty, and it is thus easy

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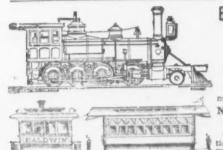
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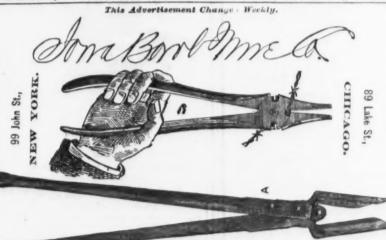
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for the consumer to give well-defined specifications to the producer and to ascertain Carbonado district. This industry, now in whether a cement suffices for his require- its infancy, seems capable of indefinite ex-

tain amount of carbon, not more than a certain amount of phosphorus, &c., but the practical requirement is its power of resisting the entrance of projectiles. It is prescribed that a rail shall show a certain measure of contraction or of elongation, but the business of the producer is to supply a rail which will bear 10 years of constant use without breaking, or bending, or exces-sivo wear. These are seemingly quite different requirements, but numerous and careful examinations have demonstrated with cerful examinations have demonstrated with cer-tainty that a certain connection does exist, upon which such conditions for delivery can be based, and a method of manufacture can be found, which makes it possible, from the ascertained qualities of small samples, to draw a conclusion as to the quality of the bulk. We are, however, far from certain as to a final conclusion. The question, for instance, whether it be better to stipulate, in addition to a certain tensile strength, the contraction to a certain tensile strength, the contraction or the elongation, or in the latter case, if it be not more just to take as measure only a part of the elongation, can be answered at the hand of theory only after a large series of careful experiments, and an even more extended series of experiments is demanded by the problem of the connection between chemical constitution and tensile strength, contraction and elongation. In this direction the institutes follow three methods. First, From all bars, &c., which show strikingly abnormal mechanical qualities, samples are taken and preserved for analysis. Secondly, Examinations are made on the influence of single elements when the composition of the material is otherwise the omposition of the material is otherwise the

Finally, and this brings us to the four h lass of researches, experiments are made on

whether a cement suffices for his requirements.

3.—CONNECTION BETWEEN THE CHEMICAL AND MECHANICAL QUALITIES AND THE RELATIONS OF THE LATTER.

If the solution of the two first-named questions is on the whole empirical, the solution of the third question is based on more theoretical speculations. It is, for instance, prescribed, that an armor-plate shall have a certain amount of carbon, not more than a like the brown coals of Dakota, and has Carbonado district. It comes out in fine, clean, solid blocks, does not slack easily, like the brown coals of Dakota, and has about two-thirds the heat-producing quality of bituminous coal. It is used by steamships, and finds a ready market for domestic consumption. Mines and railroad are owned by the Oregon Improvement Company, which has also a large shipping dock at Scattle and runs a line of steam colliers to San Francisco.

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A new wrench, intended for use inter-changeably on pipes and nuts, as circum-stances may require, that is now being put on the market by the Boston Wrench Co., of 9 Fulton street, Boston, is shown in the o Fulton street, Boston, is shown in the accompanying engraving. As may be seen by inspection of the cut, the parts of which this article is composed are few in number and very simple in shape. The peculiarity of the wrench consists in its allowing the upper jaw to play in the lower jaw socket. by which movement the wrench is enabled to grasp any pipe or round object, and still is prevented from crushing it, as is often done in common pipe wrenches. The play of the upper jaw above mentioned is governed by a small spiral spring within the lower jaw. This peculiarity of construction, although very simple, is quite advantageous although very simple, is quite advantageous in the use of the wrench. While it causes it to bite or hold in the direction turning, the wrench is instantly released by the ac-tion of the spring the moment that the pressure upon the handle is removed.

## The Iron Industry in India.

According to one of our English exchanges 4.—DEVIATIONS FROM THE QUALITIES

DEMANDED IN PRACTICE

in both a chemical and a mechanical directive special consideration the importance of



The Boston Combination Wrench.

send to the institutes samples of materials which have failed in service, particularly should fatal accidents have been caused thereby, and also that in all cases where doubts arise as to the suitability of certain every direction.

At the present time a series of investiga-At the present time a series of investiga-tions is in progress on the welding of iron, which is nearing a conclusion, while an-other series is being carried on to determine the conditions of the rusting of iron; it is, besides, very likely that other institutes will be affiliated to those now existing, in order to experiment, for example, on the constructo experiment, for example, on the construc-tion of prime movers and other subjects of mechanical technology, on the qualities of lubricants, &c. Above all things, it is neces-sary that the institutes should be protected lubricants, &c. Above all things, it is necessary that the institutes should be protected from being used for advertising purposes. The certificates which are given, show, therefore, only the result, which is obtained with the sample examined, and no expression of opinion as to its quality or applicability is added. This must be formed by the public, by combining numerous results without the aid of the superintendents or the commissioners. In concluding his paper, Doctor Wedding expressed the wish that the result might be the formation of an international commission of experts of all iron producing nations, who should express upon the conditions which should everywhere be employed

back of its eastern shores against the base of the Cascade mountains. Its width is said to vary from 10 to 20 miles, and its length, when fully explored, will probably be found to be as great as that of the sound itself, reaching from Carbonado northward to and the Cascade mountains. Its width is said to vary from 10 to 20 miles, and its length, when fully explored, will probably be found to be as great as that of the sound itself, reaching from Carbonado northward to and beyond the British line, a distance of over 100 miles. At two points upon this field mining operations are carried on successfully by the aid of railroads to tide-water. The Central Pacific Railroad Company purchased recently, for \$500,000 the mines at Carbonado, about 20 miles east of Tacoma, and is shipping coal to San Francisco for the use of its locomotives. This coal is a true bituminous—hard, solid, black and clean, not equal in heat-producing capacity to the best Pittsburgh coal, but a good fuel for railroad and steamship purposes. It is transported to Tacoma over a branch line of the Northern Pacific, and thence forwarded by sailing vessels. A number of steam colliers will soon be put in this trade by the Central Company, and extensive coal docks are now being built at Tacoma. Several new combet.

tion, as for example, experiments on materials which have not met all the requirements of practice and have been broken, crushed, &c. In this field the Prussian Minister of a greater or less extent. In Lower Bengal, als which have not met all the requirements of practice and have been broken, crushed, &c. In this field the Prussian Minister of Public Works deserves a great amount of Credit, inasmuch as he has provided that all the departments of the Government for the supervision of buildings, railways, mines, smelting and salt works, shall be obliged to send to the institutes samples of materials which have failed in service, particularly should fatal accidents have been caused thereby, and also that in all cases where doubts arise as to the suitability of certain thereby, and also that in all cases where doubts arise as to the suitability of certain materials for constructive purposes that the institutes should act as arbitrators between the producer and the consumer. In this manner it is hoped that it will be possible to bring important questions, which are of great moment to the health and life of thousands of men. to a happy solution, and finally to obviate all those terrible disasters, the causes of which too often cannot be investigated at all. It is not necessary to mention that the duties enumerated do not quite exhaust the work of the Royal Institutes in every direction.

Viceregal Government states that in quality the ores are mostly found to be extremely pure, and, where the proportion of impurities is large, recently invented processes thave removed all obstacles to their successful elimination. It appears, therefore, that India possesses the means of supplying all her wants in respect of cast iron, wrought iron and steel, and the supply could be produced remuneratively on a strictly commercial basis. Nothing appears to be necessary in order to attract private enterprise to so eligible on opening except the collection and diffusion of sufficient information and the grant of such facilities as the State may legitiof such facilities as the State may legiti-mately and reasonably afford to a young and growing industry. The Indian Government points out, however, that private enterprise in this matter must evidently be on a large scale, and not confined to one locality alone.

The distances in India are so great and the railway system now so extended, that the cost of conveying material to the spot where it is needed is an important factor in every calculation. It has been proved that unless works were established in four different locommission of experts of all iron producing nations, who should agree upon the conditions which should everywhere be employed in testing materials of construction.

Coal Beds on Puget Sound.—A writer in Olympia, Washington Territory, says that one of the great sources of wealth of the Puget Sound region, is the coal field lying back of its eastern shores against the base of the Cascade mountains. Its width is said to vary from 10 to 20 miles, and its length.

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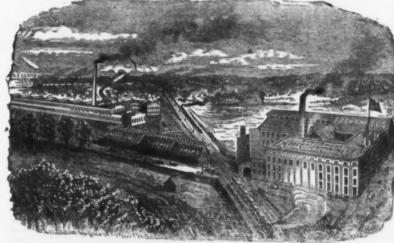
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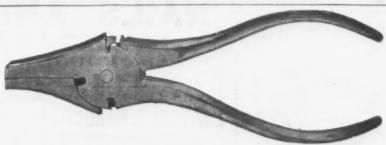
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the strap when the piston is making the up stroke. The down stroke, however, throws all the strain upon the strap by means of the gib and key. The piston-rod itself is surrounded by a light iron socket or distance piece, show in the sketches. The key takes piece, show in the sketches. The key takes bears, as I have said, metal to metal, directly GROMMETS, NORCROSS PATENT BLOCKS.

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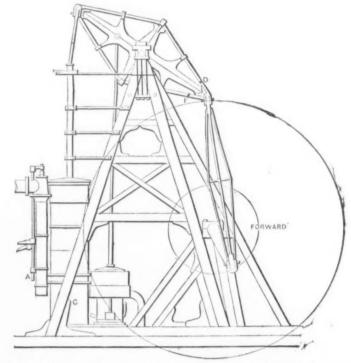
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nany to the French plan of constructing one of compression, while at F the strains

many to the French plan of constructing them with quarterings, filled in with rough stone rubble, then lathed on each side with strong laths and a coat of plaster applied and pressed through the vacuities from each side, In the construction of roofs, the laying of solid concrete flats on iron joists, or iron joists fixed to the inclination of the roof and then filled in with concrete on the French system, covered with asphalt, is a method highly approved.

one of compression, while at F the strains were of tension. That is, the resistance of the water was against the wheels in the direction of the boat's motion, while at F the strains were of tension. That is, the resistance of the water was against the wheels in the direction of the boat's motion, while at F the strains were of tension. That is, the resistance of the water was against the wheels in the direction of the boat's motion, while at F the strains were of tension. That is, the resistance of the water was against the wheels in the direction of the boat's motion, while at F the strains were of tension. That is, the resistance of the water was against the wheels in the direction of the boat's motion, while at F the strains were of tension. That is, the resistance of the water was against the wheels in the direction of the boat's motion, while at F the strains were of tension. That is, the resistance of the water was against the wheels in the direction of the boat's motion, while at F the strains were of tension. That is, the resistance of the water of tension. Cause of the Karterskill Accident.

To the Editor of the Iron Age:—Thave some facts in regard to the recent accident on board the Kaaterskill which I would like to lay before your readers, and I wish to say some plain words in regard to matters con-



Cause of the Kaaterskill Accident.-Fig. 1.-Arrangement of the Kaaterskill Engine,

rod and holding the strap in place. The end of the rod has a full seat on the cross-head, age to the condenser, cylinder, metal to metal, so that no strain comes on heads, &c.

nected with that accident which I think well worth a hearing. I send you a little sketch herewith of the strap connecting her piston-rod with the cross-head. You will see that there is a gib and key going through the produced a breakage in the engine at D, and the strap is the strap of the control of the

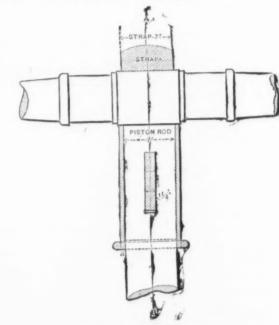


Fig. 2.—Kaaterskill's Cross-Head,

piece, shown in the sketches. The key takes a bearing 7 inches long on the rod, and 7½ on the rod and socket. The gib has a bearing of 3 7-16 inches on each side of the strap. The thickness is 1½ inches. This makes a total bearing surface of 17.968 square

In the third sketch which I send you I In the third sketch which I send you I have shown the engine in what was approximately the position at the time of the break. In this steamer the crank is forward of the cylinder, and it was at or near the end of its downward stroke when the break occurred. This is proved by several facts, among which are the following: The condenser C, Fig. 1, and the bottom of the cylinder were both smashed, the exhaust valves in the nozzle A was driven up off from their seats, and iamsmashed, the exhaust valves in the nozzle A were driven up off from their seats, and jammed fast in the chests, the air-pump links bent, the floating top smashed, and the ends of the cross-heads bent upward. Had the engine been on the opposite center when the break occurred, the lower valves would have given the cylinder steam, and the piston would have been driven up through the cylinderhead, and the wreck would have fallen on the hurricane deck. As the engine was running forward at the time, these facts of ning forward at the time, these facts of course prove that the break took place while the crank was in a position approximating that in which it is shown in my sketch. It may have been further down, of course.

may have been further down, of course.

The fractured strap shows conclusively that the first break was at D, which was short and sharp. The second break was at F, which is demonstrated by the fact that portions of the broken ends were turned outward, or, as it would be in the sketch, downward. All the resistances due to the action of the water on the paddle-wheels, and the steam tending to force the boat forward, were of such a character as to make the strain upon the point D

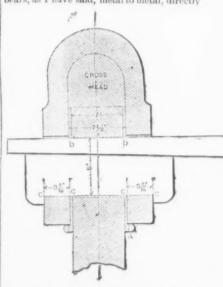


Fig. 3.-The Gib and Key with Section of

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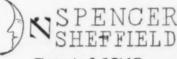
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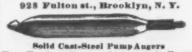
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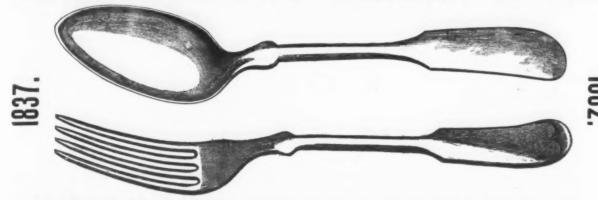
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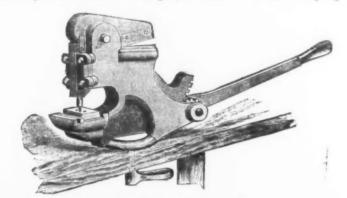
Now, what actually happened? We find the key, where it bears in the piston-rod, has been indented by the rod to the extent of 0.24 inch, and the key is widened or upset on the surface .02 inch, or as nearly as possible .01 upon each side, which is as much as the width of keyway in the rod would permit. This upsetting action extends down the side of the key for the distance of rather more than an inch, and what is curious, corresponds exactly to an venient press.

Now, what actually happened! We find ought to say, in conclusion, that the piston the key, where it bears in the piston-rod, has was tight, and there was no chance for blowbeen indented by the rod to the extent of ing through.

W. E. P.

The Little Giant Punch, Press and Shear.

The American Tool Co., of Cleveland, Ohio, are the manufacturers of a very convenient press which we here illustrate. It is distance of rather more than an inch, and what is curious, corresponds exactly to an increased width of the keyway in the rod at this point. Both the gib and key caliper 1.24 inches in thickness all over, except at those places coming within the rod and the strap, where upsetting has taken place. Along these places where they have been upset their width is increased to 1.26 inches. The quantity of metal displaced in the gib and key is about the same, and the depressions, as near as they can be measured with a micrometer caliper, are equal. Now, past a micrometer caliper, are equal. Now, past cular base, and either the punch or shear side experience warrants the statement that the can be used in front. It may be operated by proportions of this piston-rod strap, gib hand, or, if desired, a treadle to be operated by hand, er, if desired, a treadle to be operated and key, are such that no pressure of steam that had ever been put upon the adjusted to any position by changing one or cylinder would have made the slightest impression upon them, much less the apparatus will be easily understood by 5 pounds pressure which it is alleged reference to the cut. The plunger to the



The Little Giant Punch, Press and Shar,

was the amount carried in the boilers at the time of the accident. Had this break resulted from steam pressure only, acting upon a defective piece of iron in the beam strap, no mark would now be found on the cylinder, cross-head, gib and key. Yet, as I have said, they tell a very different story.

The moral of all this is almost too obvious to need mention. I may, however, go on and give some figures in regard to what this quantity of metal ought to resist. Trautwine, in his latest edition gives the crushing strength of wrought iron at its elastic limit as something like 35,000 pounds per square inch. To produce such an amount of pressure would call for a weight of considerably more than 314 tons. Computing the load by Mr. Nystrom's formula for perfect safety of wrought iron in compression, we get a pressure of 126 tons which this gib and key ought to bear in practice, and which of course would make no mark upon their surfaces. The first of these figures would call for a steam pressure in the cylinder of 201 pounds per square in the cylinder of 2 in the cylinder of 201 pounds per square inch. Following out Trautwine's rule we ob-tain 253 net tons as a perfectly safe load applicable to this area of iron, supported, it must be remembered, on loth sides by the metal of the rod.

metal of the rod.

Now, disregarding what it is claimed was the pressure on the night of the accident, let us see what the maximum cylinder pressure would be. The Kaaterskill was allowed to carry 50 pounds of steam, and the Government safety-valve was set to blow at this figure. Add to this 13 pounds for the way was well as the the way was and was the safety was to the vacuum, and we **BOLT & RIVET CLIPPERS.** blow at this figure. Add to this 13 pounds for the pre-sure due to the vacuum and we have a total of 63 pounds absolute, which might, under favorable circumstances, be realized. The cylinder had an area of 317 square inches, and this pressure would produce a strain of a trifle more than 98 tons. Truly this gives a factor of safety with a vengeance, for the greatest pressure which the steam could exert in this cylinder, under the most trying circumstances, would be, say one-half of what several exceedingly good authorities say can be carried by this area of metal with perfect safety.

Another point needs consideration, and

metal with perfect safety.

Another point needs consideration, and that is the circumstances under which the accident took place. The boat was coming down the river with the engine working easily. She had made the early part of the run considerably faster than usual and was getting ahead of time. Directions had been given to slow down, so that she should not should not a specific and required one year's time to do the work.

At Hartford the Billings & Spencer Co. have recently purchased the file shop property, and are erecting new buildings thereon, HANDLES

given to slow down, so that she should not arrive in New York too early. It was during this easy running, when the steam pressure, according to the engineer's statement, was only 35 pounds per square inch, that the accident happened; and, from what we have said, it is evident that while the steam was expanding, the piston met with some obstruction.

GANNOT was only 35 pounds per square inch, that the accident happened; and, from what we have said, it is evident that while the steam was expanding, the piston met with some obstruction on the up stroke, and as it stopped, the inertia of the boat forced the wheels ahead, carrying the crank across the dead center, and producing what must have been a strain of enormous intensity at the point D. Of course, if at the moment the piston was nearing the upper head the nozzles and clearance spaces were filled with water, an almost infinite pressure would be brought upon the beam. The same effect would probably be nite pressure would be brought upon the beam. The same effect would probably be produced if there was a quantity of water on the piston, which is flat on top; this would not have time to escape into the nozzle, and would act like a solid body. This naturally and easily accounts for all the features of the accident, and the most rational explanation of the presence of this water is that it was due to priming. Had the feed been neglected after the eugine was shut down, water would have easily been carried into the cylinder and produced the results named. This is an accident not infrequent. Indeed, I know of several cases where trouble has been experienced within a few weeks from overfeeding a boiler and carrying water into overfeeding a boiler and carrying water into the cylinder. It only remains to be said that the difference of area in the upper and lower parts of the steam valve is such that they would not lift with sufficient rapidity to

MASSACHUSETTS.

The Putnam Tool Company, with \$30,000 capital, and the Fitchburg Tool Company, with \$4000 capital, have been organized at Fitchburg by the same parties. The former is to engage in manufacturing, but the articles of incorporation of the latter refer only to "the buying and selling of new and sec ond-hand machinery."

The Berkshire Glass Sand Co. are turning out 18 tons of pulverized sand daily. They are at present building a new storehouse, and contemplate other additions to their

The business of the emery and corundum wheels at Chester has been purchased by Springfield parties, who have reorganized it with a capital stock of \$50,000. They will build a new mill 100 x 40 feet.

James Hunter & Son, of North Adams, are operating their new machine shop. They are very much pressed for orders.

The Ames Manufacturing Co., of Chicopee

NEW YORK.

Geo. Chace, manufacturer of oil stones, corner 107th street and First avenue, New York, has lately made an addition to his establishment, covering 42 feet on First avenue by 110 feet in depth. The entire establishment nue by 110 feet in depth. The entire establishment now covers 10 full lots, or a space 100 x 250 feet. A new 80-horse-power boiler and engine by Hewes & Phillips, of Newark, has been added, and new machinery has been provided for the addition. This is an establishment of exceptional extent, and the buildings are architecturally very handsome, the front being of Philadelphia brick, with terra cotta triumings. Mr. Chace, is much terra cotta trimmings. Mr. Chace is much crowded with orders, and greatly needs the additional room which this extension gives

Kirkland Furnace, in Oneida County, has relieve the cylinder. Of course, the exhaust valves would afford no relief. I, for one, think that this settles the cause of the accident beyond any reasonable doubt, regardless of the question of iron or its quality. I

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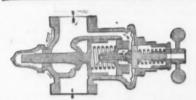
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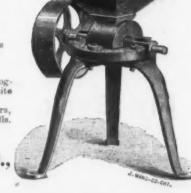
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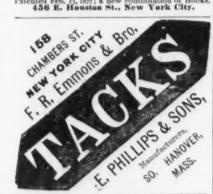
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**MEDITED** 



The Oxford Iron Company's works have been sold on the grounds for \$300,000, subject to a prior mortgage of \$50,000. The works were bid in for the bondholders. One furnace alone originally cost \$275,000. bonds amount to nearly \$1,000,000.

### PENNSYLVANIA.

The "Beaver Wire Company, Limited," was incorporated Oct. 6, and is now actively engaged in erecting works at Beaver Falls. Their location on Marginal Railroad, connecting Power Parks. ing Pennsylvania and Lake Erie system of roads, is considered exceptionally favorable. Choice coal is mined near the works, while Choice coal is mined near the works, while stone, red brick, fire brick and all other materials are equally convenient and cheap. Contrary to published rumors, the manufacture of barbed wire is not contemplated. The officers are: H. W. Hartman, of Johnstown, chairman; H. T. Reeves, agent Economites, Beaver Falls, treasurer; and J. D. Kelvie, of Johnstown, superintendent. Such

the 6th of October, almost five months, or exactly 149 days from the time of stopping, live coal was found at the tuyeres, while the hearth below the tuyeres was full of ashes. At 7.30 p. m. on the 6th blast was applied, good gas immediately made its appearance at tunnel head, and stock began to settle evenly and regularly. Cinder showed itself at tuyeres five minutes after blast was put on, and in half an hour a good flush of it was drawn from furnace. Tuyeres all opened bright and have remained so since the start. The first cast of iron was made 12 hours after blast was applied, the metal being in after blast was applied, the metal being in quality good gray forge. Dimensions of furnace, 14 feet bosh, 60 feet high, running on about three-fourths blast and producing 40 tons of iron per day. No. 1 furnace last week, the second after starting, made 356 ½ tons of pig metal. These facts are so pronounced that comment is unnecessary.—

Phonicville Messenger.

Sharpsville, Ella and Fannie furnaces, in the Shenango Valley, were all started up last week. Sharpsville Furnace has been idle for zeven years and now goes in with all modern improvements.

It is said that a company has been organized to start the Rochester Flint Vial and Bottle Works, lately sold by the sheriff.

The new Powellon Furnace, owned by Robert Hare Powell, at Saxton, Bedford County, will be blown in very shortly. The stack is 70 x 18 feet and has 3 Whitwell

The machine department of the Harrisburgh Foundry and Machine Works was burned on October 10th, throwing a large number of men out of employment. The loss is estimated at \$50,000, of which part is covered by insurance

# PITTSBURGH AND VICINITY.

The Messrs. Kloman are about to fill an order which will involve much more difficulty than the ordinary run of rolling-nill work. This order is from the United States Spring Car Motor Construction Company, of Philadelphia, and calls for 8 steel springs, 300 feet long, 6 inches wide and ¼ inch thick. These will be rolled by the Messrs. Kloman on their universal mill, the Spring Steel and Iron Company having furnished the billets. The latter are very large, and a heating fur-nace over 30 feet long has been erected in the Superior Mill especially to heat them.

Lindsay & McCutcheon are, we understand, erecting 20 additional puddling furnaces, 2 heating furnaces, squeezers and a rain of rolls, in their mill on Rebecca street. This will make an aggregate of 40 paddling urnaces at that mill.

The Hall Rolling Mill at Hibbard will be started next Monday, or as soon thereafter as the machinery can be put in running order. The mill, which has 12 puddling furnaces and a finishing mill, has been standing idle since last spring, the Halls, who own it, not being disposed to run or lease it to any one that would light the fires and start the wheels in motion.—Pittsburgh Disputch.

The Whitney & Barnes Mfg. Co., at Akron, are about to increase their capital from \$800, 000 to \$1,500,000.

The Ironton Hoe and tool works are put-ting in a new tool hammer, which makes the fifth one in their establishment. They have

The following appears in the Ironton Reg-

ister:
Notice.—Books of subscription to the capital stock of the Kelly Nail and Iron Co. will be opened on Saturday, November 11, 1882, at 10 o'clock a. m., at the office of Wm. D. Kelly, in Exchange Bank, Ironton, Ohio, Ironton A. Kelly, B. S. Brown, D. S. Gray, W. W. Franklin, Chas. Parrott.

CHAS. PARROTT.

We have no further information regarding

Wm. R. Eynon & Sons, of Cleveland, have recently delivered two of their milling ma-chines, one to the Cleveland Machine Co. and one to the Pullman Palace Car Co., Chi-

Work has commenced on the buildings for the mill of Spaulding Iron Co., at Brilliant. The machinery is being contracted for and the company hope to be ready to start early next year. Nearly all the stock is taken.

The new furnace of the Cleveland Rolling Mill Co., called Central Furnace, we believe, is making about 1000 tons per week. The stack is 75 x 20 feet

terials are equally convenient and cheap. Contrary to published rumors, the manufacture of barbed wire is not contemplated. The officers are: H. W. Hartman, of Johnstown, chairman; H. T. Reeves, agent Economites, Beaver Falls, treasurer; and J. D. Kelvie, of Johnstown, superintendent. Such prominent wire consumers and capitalists as J. L. Ellwood, of De Kalb, Ill.; R. E. Sears, of Marshalltown, Iowa; A. K. Stiles and J. W. Calkins, of Chicago, are said to be comprised in the organization.

Work is still progressing in repairing Bechtelsville Furnace, but it may require until near Christmas before it will be put into blast.

No. 3 blast furnace, Phoenix Iron Company, Chas. I. Rader, Esq., superintendent, like No. 1, of which we spoke two weeks ago, was banked on the 10th of May, and in a similar manner thereto. When opened on the 6th of October, almost five months, or ago, was banked on the 10th of May, and in a similar manner thereto. When opened on the 6th of October, almost five months, or exactly 140 days from the time of stopping, live coal was found at the tuyeres, while the hearth below the tuyeres was full of ashes.

At 200 m on the 6th blast was applied, pared for their place as soon as the walls are ready. They are massive combinations of timber, which it will require derricks to handle, but it is the opinion of Mr. Sylvestyr and of Foreman McNair that there will be no difficulty in getting them just where they belong, and that they will be a perfect fit. The roof is to be of corrugated iron, and will probably be made in Chicago. Nothing has as yet been done as to the in-ternal arrangements. Between 50 and 60 Aurora Beacon.

The Novelty Mfg, Co. have located in Chicago, to make a line of goods indicated by their name. They make a specialty of brass locks.

The Chicago Tire and Spring Works, at Melrose, are now running every department, having started up the recently burned and rebuilt portion on October 4.

A new company recently formed in Chicago is called the Silver Star Steel Works. It has been organized, with \$300,000 capital, to make crucible and open-hearth steel, Mr. A. D. Lamb, of Brintnall, Lamb & Co., is among the incorporators. All of the stock has not as yet been subscribed for, and nothing will be done as to creeting buildings until it is all taken. it is all taken.

The Rockford Watch Company have com-nenced work on a \$10,000 addition to their

The new Burlington Plow Company will manufacture the Neff Combined Riding and Walking Tongueless Cultivator. They have

# MICHIGAN.

The works of James Jenks, of Detroit, manufacturer of the "Duplex Injector," have been removed from 16 and 18 Atwater street to the large three story and basement striet to the large three story and basement building, 48, 50, 52 and 54 Randolph street. Their present works, 70 x 100 feet, have been refitted and furnished throughout to meet the requirements of their largely in-creased business. The basement of their new building is used as a boiler and engine room, while the other floors are occupied by main offices, sample and warerooms, private offices, storerooms. &c. offices, storerooms, &c

A Blast Furnace in Operation in Utah.—The blast furnace Laura May, lo-cated at Ogden, Utah Territory, made its first pig iron on the 21st of last month. The kindling was lighted by Miss Robin, daugh-ter of Mr. R. L. Jones, lessee and manager, furnaces at that mill.

Both of the Lucy furnaces have been relined and blown in.

Wm. Swindell is erecting two Siemens gas-heating furnaces in the works of the Pittsburgh Forge and Iron Works. If they give satisfaction we understand all the furnaces in the mill will be changed to gas furnaces.

VIRGINIA.

Columbia and Liberty furnaces, in Shenandoah County, have been sold by the Messrs. Wissler to a new company, in which they are interested. The price paid was \$231,000. The company will enlarge and extend the plant.

ONIO. likewise been leased by Mr. Jones, who will get it into working order as soon as possible. The machinery, which was made by Mr. J. L. Lewis, of Pittsburgh, has been on the ground for a long time, and the foundations for the same are prepared, and it will probably not be long before finished iron also will be made in Ogden. The construction of the mill was begun in 1875, but it was not completed. It will contain two trains of rolls, an 18-inch and a n-inch. When completed it also will be run by water completed it also will be run by water power.

We hear that our principal manufacturers of machine tools, particularly such as are suited to railway repair shops, are as busy as ever. Orders in some instances are accumuever. Orders in some instances are accumulated sufficient to employ the whole force many months ahead. The pressure, however, is diminished since the breakdown and withdrawal of certain contracts with Mexican railway companies somatime last spring, It is believed that very few orders of any importance have gone abroad.

The leading Western cities are competing with New Orleans and San Francisco for a share in the great prospective trade of Mexico. The latest movement is the opening of the "Mexican Exchange" in New Orleans.

# The Iron Age

## Metallurgical Review.

New York, Thursday, October 19, 1882.

DAVID WILLIAMS JAMES C. BAYLES JOHN S. KING .

Publisher and Proprieto Editor. Business Manager

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burgh Hardware and Metal Prices.

The Cincinnati Mills and the Amalgamated Association.

Our readers will remember that at the close of the strike in the Cincinnati mills, about a year ago, an agreement was signed between the Amalgamated Association and effect that the mills were to pay the old Cincinnati price, which was in advance of the price. The agreement, however, contained a proviso that in case there was no agreement in price on the 1st of June at Pittsburgh, the Cincinnati mills were to continue running until the price was settled at Pittsburgh, and then that price was, in accordance with the agreement, to be the Cincinnati price.

When the strike occured at Pittsburgh, on the first of June of the present year, the pud-dlers in the Cincinnati mills refused to keep the agreement, and were idle for a number of weeks. They finally resumed work on a compromise, which involved a modification of the original agreement, the word "forever" in the clause that stated after June , 1882, the price should forever be the Pitts burgh price, being stricken out, which would leave the agreement without any time stated as to its continuance.

This was not the last trouble in connection with this agreement. When the price was settled in Pittsburgh on the 20th of Septemer, the Cincinnati mills assumed that the wording of the agreement parries them out in their assumption that from that date Pittsburgh prices were to rule, up to that date the old Cincinnati price. As the pay-days came in the mills the men were paid in accordance with this belief : that is, they were paid the Cincinnati price to September 20. and from September 20 on, the Pittsburgh price. This was immediately followed by s strike, the men claiming that they were en titled to two weeks' notice before Pittsburgh prices should go into effect, they probably pasing their claim, not on anything that was in the agreement, but on a section in their own constitution which requires a twoweeks' notice under certain circumstances. On Saturday, the 7th, several of the mills paid their employees, and accompanied the pay with a circular similar to the following CINCINNATI, October 7, 1882.

CINCINNATI, October 7, 1882.

To Our Workmen: If the pay inclosed is not strictly in accordance with our contract of October 19, 1881, and June 10, 1882. we will make the amount good on being satisfied there is any mistake or anything due for extra labor. We trust our workmen will appreciate a just and honorable ontract, entered into in good faith, and be at contract, entered into in good their posts Monday morning. SWIFT'S IRON AND STEEL WORK\*, E. L. HARPER, President.

All of the Cincinnati mills had not had paydays, but as the same question was involved

in all, they all stopped work Saturday, the 7th. A conference was held Tuesday afternoon October 10, at the office of Swift's Iron and Steel Works, between the manufacturers and workmen. After some interchange of views between the men and proprietorsand an assurance from Mr. Jarrett and the representatives of the workmen that the ontracts of October 29, 1881, and June 10, 1882, were accepted, fully and unreservedly, by the workmen—the proposition of the men was unanimously adopted by the proprietors,

as follows : COVINGTON, KY., October 10, 1882.

To the Iron Manufacturers of Cincinnati and Vicinity: We, the workingmen engaged by the above manufacturers, wish to submit the follow ag proposition, to wit: We, the undersigned, ereby agree to the appointment of a committee of arrange for a schedule of wages under contract October 29, 1881, and June 10, 1882. And, until aid committee report, the wages to remain as er Cincinnati prices paid under said contract th aid committee to arrange all details of pro-

Respectfully, the committee,
B. F. STEVENSON, M. R. SHELOW REES PROSSER. WM. LEWIS, MARTIN BUTE. WM. E. EGAN. D. S. RODERICE, MARTIN B Accepted for the manufacturers, SWIFT'S IRON AND STEEL COMPANY. RIVERSIDE IRON AND STEEL COMPANY, By E. L. HARPER.
LICKING ROLLING MILL COMPANY. L. M. DAYTON.
GLOBE ROLLING MILL COMPANY.

We presume that the manufacturers of Cincinnati are well able to take care of their own business, but we are mistaken if this yielding to the Amalgamated in this matter will not be a source of future trouble. They have virtually had two strikes by reason of refusal on the part of the workingmen to keep their agreement, and in both cases they have yielded to them. We shall be sur-

prised if they do not have another strike for

MITCHELL, TRANTER & CO.

the abrogation of the agreement entirely. We publish on another page a very interesting letter in regard to the cause of the Kaaterskill accident. It is worthy of the most careful attention of all who have given any consideration to the subject. The writer confines himself entirely to the structure and known conditions under which the engine was working for materials upon which to demonstrate the correctness of his theory. He might with propriety have carried his something of the doctrine that they were reasoning still further and shown that the peculiar appearances of the broken surfaces tions under which the strain was applied. The Bulletin, a publication of the club, had Thirty fifth Page. New York Wholesale The engine was probably making 20 revolubeen discontinued for lack of funds, and the tions per minute at the time of the accident, treasury was empty, and its organization Thirty-ninth Page .- Philadelphia and Pitts- or one revolution in three seconds. In this was over \$1000 in debt. Some of the memtime the piston was making two 12-foot bers of the club were much exercised over Fortieth Page. - Boston Hardware and Mctal strokes, or passing through 12 feet in 11/2 the suspension of the Bulletin, and a collection

part of the stroke, or .03125 of a second, a period so infinitesimal as to equal a blow, even though a broad margin be allowed representatives of the manufacturers, to the for retardation, due to the angularity of the of the club. This is certainly very sad; no rod and the irregularity of the motion. We doubt whether, under such ciruum Pittsburgh price, until June 1, 1882, and stances, any valves could have afforded from then forever afterward the Pittsburgh relief. The water acted like a solid body. Referring to Mr. Hill's report in our last issue upon the behavior of metal under slow or sudden strains, we find that a strain thus suddenly applied would be expected to produce a short and granular fracture even in the toughest iron. The appearance of the break is then perfectly accounted for. The The amount of strain necessary to break the strap would be, on the basis of the tests, 500 tons, or about 200 tons more than the gib and key could stand without distortion.

## The Prussian Institutes for Testing Materials of Construction.

We present to our readers in another place the paper of Dr. H. Wedding, of Berin, on the Organization of the Prussian Institutes for Testing Materials of Construction," which was read at the Vienna meeting of the Iron and Steel Institute. To those of lish manufacturers naturally fall behind and our readers who are either producers or conumers of construction materials, we cannot oo strongly recommend the careful perusal of this paper. Clearness of perception of the needs and requirements of both classes is the chief characteristic of the paper, and seems to have been brought to bear in the organization of the institutes. Their creation was mainly due to the indefatigable efforts of the author, who keeps modestly out of sight his wn large share in the good work.

Dr. Wedding lays great stress upon the ecessity of such institutes being controlled by the Government "for then only is there a guarantee of entire impartiality and disinterestedness, and an assurance that in each test the interests of the producing and consuming parties are equally regarded." However that may be in Prussia, we think this principle not available for general application. Under our own Government, for instance (none of our readers will doubt this), he very existence of such institutes would depend upon their being more or less political machines. The sad experience of ast year has taught us that profit or patronage, or both, form the conditions of appropriations. How long would it be before National Mechanical Laboratory under political control would simply become a sort of snug harbor for superannuated politicians or a convenient advertising bureau for favorite Government contractors !

Doctor Wedding, while acknowledging the difficulties which beset his path in the beginning, chiefly because large producers thought they saw, or affected to see, in the proposed examination of the materials an encroach ment upon their rights, admits at the same time that now, "the cost of carrying on the institutes is covered to a great extent" by paid-for tests. If the iron and steel industry of Prussia is capable of supporting thos institutes, how much more so is this possible in the United States. In this part of Dr. Wedding's paper we find the strongest support for the practicability of a national mechanical laboratory created without Government aid or control.

The organization of these institutes, the division of labor in the different departments, the methods employed in collating tests, the independence of each other of the different departments, kept withal under a common control, are all most admirable fea tures and worthy of careful study and consideration.

Doctor Wedding concludes with the hope that the publication of the efforts of his Government in this direction may lead to Cobden Club is considered a very question the formation of an international commission able one. These influences, combined with of experts of all iron-producing nations, who shall agree upon the conditions which should everywhere be employed in testing materials of construction. This suggestion is a most happy one, and its adoption would result in great good to our manufacturers, from the facilities it would give for the extension of our markets upon the basis of adaptability of material and quality of product.

Our free-trade friends seem to be in financial trouble, and that, too, just at a time when they are claiming that free-trade ideas are making rapid progress. The advocates of free trade "write for it, fight for it, die for it," anything but contribute funds for it. A report of a meeting held in New York on the evening of the 5th, tells tales out of school. It is reported that several persons who had been elected members of the club without having been consulted upon the subject, had written indignant letters, disclaiming any sympathy with the organization. The Press Committee reported that editors of country papers in favor of free trade were clamoring for documents from which to learn committed to advocate. They complained that the Protectionists seemed to have a seconds. If the water in the cylinder was tion was taken up in the meeting in order to

deep enough to bring up against the cylinder get the publication out this month. It was cover 3 inches from the end of the stroke, or feared that its disappearance might have a one-fourth of a foot, the strain would be disastrous effect upon the country journals applied in approximately the forty-eighth which had been in the habit of depending upon it for free-trade ideas. The suspension of the paper would also be an undesirable advertisement of the impecunious condition doubt its friends of the Cobden Club, on the other side of the water, will come immediately to the rescue.

### Continental Competition with British Steel Works.

Judging from the latest reports which have reached us, the competition of Continental iron and steel works with those of Great Britain is gradually becoming more serious. This is strikingly shown by the fact that quite recently so important a contract as 30,000 tons of steel rails for the Victoria Government was given to a German firm. It would appear that England can no longer depend upon the prestige which in former days won for her renown in opening up fresh channels for her industries, and which gave her almost a monopoly in the supply of the staple manufactures of the world. As cheapness of production is now one of the ruling essentials, the cheapest article, as a rule, carrying off the victory, Engmust give way to European and American German and Belgian manufacturers especially are now making efforts to obtain from England a large share of the Australian and Pacific trade in the supply of steel and iron rails and manufactured goods, and the placing of the large order alluded to above with Continental manufacturers, shows conclusively that the competition is one which cannot be totally ignored, and which is, to say the least, a most signifi-cant warning. It is said that Messrs. Siemens, of the Landore Steel Works, and other large British manufacturers were competitors, and the fact that they were beaten in their own colonies by German firms is worthy of note. The London Mining Journal, in dwelling upon this sub-ject, states that it "has never professed "to be influenced by political considerations, our great object being the interests of the mining and staple industries of the kingdom. Still the Protectionist Party have certainly a most powerful argument in favor of their policy when they look at what is daily transpiring in Germany. The advocates of free trade have always contended that Protectionist States could not compete in neutral markets with freeimpost countries, and it is further alleged that the policy of Count Bismarck is causing much distress among the industrial and manufacturing classes by its protection. How will these Free Traders reconcile their theory with the perforce acknowledged fact that Germany has just beaten English manufacturers out of the market in such an important staple article as 30,000 tons of steel rails? Facts are stubborn things, and it is a question of vital moment to comprehend why the above contract has been given to a Continental State, and that State being a Protectionist one. English manufacturers, and English workmen too, must look these things steadfastly in the face. Whatever may be said to the contrary, and however much some people may endeavor to poohpooh the statement, the fact remains that we are being rapidly beaten out of the field even in the supply of steel and iron manufactured goods in our own colonies. The gradual decline is attributed, by the above-mentioned journal, to the many restrictions in the shape of Factory and Workshops Acts which hamper English manufacturers, and which do not exist in their severity in either the Continental or American States, while the free-trade policy of the the action of the trades unions, which are strong enough to keep up a scale of wages incompatible with Continental competition are not to be disregarded. It is admitted that England can scarcely hold her own, and with prospects of an extensive strike among coal miners and ironworkers, the outlook seems anything but assuring.

# The Position of Spelter.

The consumption of Spelter in the United States, both for galvanizing and building purposes, has been steadily on the increase for a year or two past and is so still, judging from the amount we import in the shape of slabs and sheets, without much affecting the price. During the first seven months of the current year we imported, of both together, 8500 tons, of 2240 pounds, against only 1131 tons during the corresponding period of last year. At the West, spelter works multiply, but the supply of ore is not only uncertain, but insufficient, and works are erected further and further westward to get nearer to the sources. Actual production at the West is estimated at 24,000 tons, of 2240 pounds, whereas the capacity of the smelting works in operation is 50 per cent. could be easily accounted for by the condi- monopoly of all the arguments in the case. greater, say 36,000 tons. A well-informed correspondent writes from St. Louis:

district for barns, or that they will be in the same condition as those of Carondelet and Arkansas. From New Jersey, spelter smelting migrated to Pennsylvania, thence it spread to Illinois, thence to Carondelet, and finally to Joplin. Our next will be to Colorado or New Mexico, as I have been advised of large bodies of blende in both places." That, under such circumstances, the capitalists who have invested their money in smelting works threatened with a comparatively short existence cannot feel com fortable, is to be expected.

Meanwhile spelter production is rapidly on the increase in Europe. At Liége, in Belgium, nearly 70,000 tons of spelter were turned out last year, against 60,000 tons in 1880 The ore was procured from Greece, 40,000 tons; Italy, 39,000; Spain, 35,000; Sweden, 13,000; Germany, 13,000; France, 3800, and of Belgian ore 19,200 tons were smelted. In England production from domestic ores more than doubled last year, being 14,947 tons, against 7162 in 1880, and 5554 in 1879. Austria produced last year 4119 tons, against 3756 in 1880. The Silesian increase year after year, with almost mathematical precision, is about 10 per cent., or nearly 10,000 tons. In fact, the total European increase per annum may be safely put down at between 10 and 12 per cent., or 30,000 tons. That our increasing consumption and inadequate means of production from domestic ores is quite welcome to European producers is evident. They watch our market closely, and so far this year have shipped us between 1000 and 1200 tons per month. Perhaps they may be in hopes of having us take double the quantity next year; if we do, we should take pretty much their whole surplus output, which would assist them in maintaining prices without the necessity of forming syndicates to support them, for it is to be presumed that in Europe, too, consumption increases, if not quite as fast, at least in a very satisfactory manner. This, from all we hear, is indeed the case, for galvanizing is becoming more general year after year in Europe, and building over there was never brisker.

As matters stand, the prospect is that on this coast we shall be consuming more and more exclusively in the future the imported article, while the West, with the local drawbacks it has to contend with, will have to shift as well as it can.

While the Western smelter as a remedy advocates the raising of the duty on spelter and sheet zinc, the Eastern smelter will, of course, pronounce in favor of procuring ores from abroad. Whether this would be feesible, however, we do not feel quite sure, since our Eastern works are, for the moment, at least, almost exclusively makers of special brands of high quality, or are producers of zinc white; so that their market, as it is constituted at present, is comparatively little affected by the struggle between Western and European works. All the consumer cares about is steadiness in price, and this he has had so far this year.

# The New Spanish Tariff.

The British Chambers of Commerce and other public bodies are now urging upon the Government the necessity of entering into a new treaty with Spain, as British traders are at a great disadvantage when competing with such nations having tariff arrangements. A new tariff came into operation last month in Spain, and the subjoined table shows, as far as regards iron and steel, the disadvantage under which traders in countries without treaties labor compared with the nations with treaties (one peseta of 100 centimes = about 19.3 cents) :

|   | ,  | Unit, kg. | Nations wit<br>out treaty<br>Peg. | Nations wi<br>treaty.<br>Per. |
|---|--|-----------|-----------------------------------|-------------------------------|
| 1 | Cast iron, in pigs, and old iron<br>Cast iron, in tubes, of all classes  | 100       |                                   | 8.00                          |
| 9 | Cast iron, in ordinary manufac-  | 100       | 4-70                              | 3.50                          |
| 5 | tures<br>Cast iron, in fine manufactures,<br>&c., those polished or furbished<br>with coating of porcelain and                     | 100       | 7.50                              | 6.10                          |
| ì | onarments of other metals  | 100       | 37.50                             | 11.80                         |
|   | Wrought iron and steel rails<br>Wrought iron, in sheets, from 6<br>mm. inclusive in thickness, and                                 | 100       | 8.00                              | 4 - 55                        |
|   | rivets. Wrought iron, in bars of any shape, in sheets up to 6 mm. thickness; axles, tires, plates and springs for carriages, and   | 100       | 9.00                              | 6.70                          |
| ı | the flat steel for same. Wrought iron, in large pieces, made of rar iron or diveted bar iron and sheet iron, for build-            | TOP       | 13.00                             | 8.65                          |
|   | ings, bridges, &c  | 100       | 16.90                             |                               |
|   | Iron wire  | 100       | 8.00                              | 6.55                          |
|   | with brass heads   | 100       |                                   | 14.85                         |
|   | Wrought-iron tubes<br>Unmanufactured wire gauze  | 100       |                                   | 8.50                          |
|   | Iron in all sorts of manufactures<br>not expressly mentioned, al-<br>though having a coating of<br>porcelain and portions of other | 100       | 16.00                             | 15.00                         |
|   | metals, and tubes covered with   |           |                                   |                               |
|   | sheets of brass Inutilized objects of iron and   | 100       | 24.00                             | 19.84                         |
| 4 | steel  | 100       | 5.00                              | 2.50                          |
| 1 | Tin plates   | 100       | 20.00                             | 13.85                         |
|   | Tin plates, worked up<br>Needles, Steel pens, pieces for<br>watches and other similar ob-  | 100       | 62.50                             | 50.95                         |
| - | jects of iron and steel  | kg.       | 3.00                              | 3.00                          |
| 1 | penknives<br>Sciasors.   | Kg.       | 1.00                              | 1.00                          |
| 1 | SCISSOFS   | Kg.       | 2.25                              | 8.95                          |

The various electric light companies in this city are having a lively fight over the accidents which have recently happened. The "I look upon Colorado as our incandescent people are trying to bring about next source of supply, and not many a public opinion against using powerful curyears hence she will be producing the ore, rents, and are pointing to the recent death of and spelter will be made in that State. I a lineman on a pole, from the passage of a venture the prediction that in five years heavy current through his body, as a proof "you can buy all the furnaces in the Joplin | that their position is a correct one. While this elet.

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is very smart, and will be more or less successful, we think it by no means follows that we ought to give up the use of powerful currents in electric lighting. This is very much like the old war which was waged against highthe old war which was waged against high-pressure boilers. They were dangerous and ought not to be tolerated. We may just as well recognize the fact that the electric light has come to stay, and has come to stay in all of its present forms at least. We must have currents of high intensity, as well as those of more moderate character, and because a few accidents happen from ignorance or carelessness, there is no reason why we should at once cry out that every current exceeding a certain intensity should be discontinued. The sensible thing to do in this matter is to study the conditions necessary for the safe handling the conditions necessary for the safe annuling of the wires. The proper course is to instruct the people as well as the operators, and cease the foolish talk, of which there has been altogether too much, in regard to the perfect safety of electric lighting.

Mr. David Dale of Darlington, England, has lately made an award in connection with puddling that is of some interest to the mills of this country. The puddlers claimed an extra rate where a mixture of hematite iron was used with common iron, but the arbitrator finds that it would not be equitable to depart from a long-standing custom and ac-cede to the demand, as it would virtually the general rate for puddling, which I not be expedient, and is beyond his would not owers. This is in effect the question of strong iron," that has been such a troublesome one at many of our mills.

## The Tariff Commission at Pittsburgh.

Monday, Tuesday and Wednesday of last week the Tariff Commission held sessions at Pittsburgh, hearing arguments from the various industries of Western Pennsylvania and Eastern Ohio, especially the iron, glass and pottery manufacturers and wire interests.
Most of Tuesday was devoted to hearing the
committees appointed at Cresson, which presented the schedules of rates adopted at that
convention, and enforced them with arguments printed and oral. These committee

ments printed and oral. These committees are as follows:
James Park, Jr., chairman.
Iron Ora.—George H. Ely, Cleveland, O.;
J. Wesley Pullman, Philadelphia; Smith M. Weed, Plattsburgh, N. Y.
Pig Iron.—Frederick Prime, Jr., Philadelphia; W. H. Wallace, Steubenville, Ohio;
J J. Spearman, Sharpsville, Pa.; John W. Chalfant, Pittsburgh.
Hoop Iron.—William Clark, Pittsburgh;
W. E. Taylor, Youngstown, Ohio; James McCutcheon, Pittsburgh.
Bar Iron and Nails.—A. F. Keating, Pittsburgh; Oliver Williams, Catasauqua, Pa.;
James I. Bennett, Pittsburgh.

burgh; Oliver Williams, Catasauqua, Pa.; James I. Bennett, Pittsburgh. Bessemer Steel.—O. W. Potter, Chicago; Cyrus Elder, Johnstown, Pa.; Jos. Wharton,

Cyrus Elder, Johnstown, Fa.; Jos. Wharton, Philadelphia.

Crucible and Open-hearth Steel.—C. C. Hussey, Pittsburgh; Wm. Motcalf, Pittsburgh; R. G. Bushnell, New York.

Plates and Sheets.—W. Dewees Wood, Pittsburgh; Horace A. Beale, Parkesburg, Pa.; Charles L. Bailey, Harrisburg, Pa.; C. E. Pennock, Coatesville, Pa.

Wirs.—P. L. Moon, Worcester, Mass.; W. H. Cassidy, Pittsburgh; Thus, W. Fitch, St.

Cassidy, Pittsburgh; Thos. W. Fitch, St.

Tin Plates.-W. C. Cronemeyer, Pitts-P. H. Laufman, Apollo, Pa.; Alfred

Marshall, Philadelphia.

James M. Swank, Joseph D. Weeks, Geo.
W. Cope, Henry Whiteley, secretaries.

Mr. James Park, Jr., appeared as chairman of the committee. He announced himself as strongly in favor of a protective tariff, and spoke in opposition to the system of undervaluations so prevalent, and gave an instance coming under his own experience.

He said it had been arranged that the iron ore interest should be first heard, but he asked the Commission to make arrangements to hear the committee in Philadelphia. He concluded by submitting printed copies of the paper prepared by James M. Swank, secretary, as the views of the American Iron and Steel Association.

Mr. Swank's paper is able and valuable, and we regret that we cannot reprint it in

following quotation, however, will be of interest:

THE PERNICIOUS EFFECTS OF AD VALOREM DUTIES.

ther examination. which embraced the darkest period of the hard times which this country has recently experienced, English pig iron was sold at 32 or about \$3 a ton, and Scotch pig iron at 40 or about \$10 a ton. If the duty on pig iron in those days had been 30 per cent., as it was under the tariff of 1846, the American manufacturer would have been protected against his English competitor only \$2.40 a ton, and against his Scotch compatitor only ton, and against his Scotch competitor only \$3. As ocean freights were then extremely low, it would have been possible with a 30 per cent. duty to close nearly every Ameri can furnace. Owners of American furnaces were then compelled to sell their best pig iron at \$16 and \$17 a ton, at which prices they realized no profit whatever. Their iron at \$16 and \$17 a ton, they realized no profit whatever. Their business was saved from destruction by the business was saved from destruction by the ence between this duty and the duty of \$2.40 or \$3, which the tariff of 1846 would have d. accurately represents the difference imposed, accurately represents the data sake between a policy of protection for the sake of protection and a policy that is said to afford incidental protection.

Another illustration of the fallacy of the

doctrine of incidental protection may be In 1877 the price of American steel rails fell to \$39 and \$40 a ton, at which prices their manufacture was unprofitable At the same time the price of English steel rails fell to £4. 10/ or about \$22.50. If the had been 30 per cent. the American duty had been 30 per cent. the American manufacturer would have been protected against his English rival just \$6.75 a ton. Ocean freights in 1877 on steel rails averaged about 10/, or \$2.50, a ton. The whole cost to the English manufacturer of placing his steel rails in American ports would not, therefore, have exceeded \$33, at which price steel rail establishment in this country

would certainly have been closed.

The above illustrations afford fresh evithe thousand, 3 cents per pound.

dence of the pernicious effects of ad valorem duties, as well as of the deceptive character of the policy of incidental protection. Ad valorem duties are rarely friendly to domes-tic industry. When foreign prices are low-est, and foreign competition is, therefore, most to be dreaded, ad valorem duties afford the least protection. They give the least when the most is greatly needed. We need not wonder that the iron and steel industries not wonder that the iron and steel industries of this country made no progress under the tariffs of 1846 and 1857. The low ad valorem duties which they imposed were well calculated to arrest all industrial progress.

THE FALLACY OF REDUCING SPECIFIC DUTIES TO AD VALOREM EQUIVALENTS.

We may here allude to an argument which sometimes made against the present specific duties on iron and steel, namely, that if reduced to ad valorem rates, they are shown upon their face to be exorbitant and thereupon their face to be exorbitant and therefore at war with the rights of consumers and at variance with public policy. Thus, the duty on pig iron is \$7 a ton; the price of North of England pig iron is to-day about 44/ or \$11; the ad valorem duty is therefore about 64 per cent. The duty on ordinary bar iron is \$22.40 a ton; the price of English bar iron of this quality is £7 or \$65; the ad valorem duty is therefore 64 per cent. the ad valorem duty is therefore 64 per cent The duty on steel rails is \$28 a ton; the price of English steel rails is about £5 or \$25; the ad valorem duty is therefore II2 per cent. The fallacy of this reasoning consists in this, that it ignores the fact that, when prices are highest abroad, and foreign competition is consequently least to be dreaded by domestic manufacturers, the reduction of specific to ad valorem rates shows them not to be at all extortionate. When the English iron or steel manufacturer is selling his products to us at high prices, our duties, according to the above reasoning, become "just too lovely for anything." To make this clear we need only to imagine the prices of the above-mentioned articles to be loubled in England—pig iron to be \$22 a ton, bar iron to be \$70, and steel rails to be \$50. Our specific duties reduced to ad valorem rates would then be but 32, 32, and 56 per cent. respectively. Nor does the arithmetician who delights in converting specific to ad valorem rates take any account of domestic prices. The lower the prices of American pig iron, bar iron and prices of American pig iron, bar iron and steel rails, the greater, according to his theory, becomes the extortion practiced upon the oppressed consumers. Thus, the duty on steel rails has been \$25 a ton since 1870, but the price of steel rails of domestic manufacture has greatly fallen since that year. When the duty went into effect the price of American steel rails was \$110 a ton; the extention was therefore only 25 per the extortion was, therefore, only 25 per cent of that price. When the price dropped in 1877 to \$40, the robbery of the consumer ed to exactly 70 per cent. This is

The various committees submitted the schedules which had been prepared as they were called in rotation, and presented argu-ments for the same. The complete schedule is as follows :

PROPOSED SCHEDULE OF TARIFF DUTIES ADOPTED BY THE CONVENTION OF IRON AND STEEL MANUFACTURERS AND IRON ORE PRODUCERS, AT CRESSON, SEPTEMBER 12 AND 13, 1882.

PROPOSED RATE OF DUTY ON IRON ORE. On all kinds of iron ore, including man-ganiferous iron ore and what is commer-cially known as "blue billy," 85 cents per

PROPOSED RATES OF DUTY ON PIG IRON, AND ON CAST AND WROUGHT SCRAP IRON, AND ON IRON CASTINGS.

On iron in pigs, \$8 per ton. On ron in pigs, \$5 per ton.
On cast scrap iron of every description,
\$8 per ton. On wrought scrap iron of every
description, \$8 per ton. Provided that
nothing shall be deemed scrap iron except

waste or refuse iron that has been in actual on malleable iron in castings not other vise provided for, 2½ cents per pound. On all other castings of iron not o

wise provided for, 40 per cent. ad valorem. Provided that no castings of iron shall be admitted at a lower rate duty than that which is imposed on iron in pigs.

PROPOSED RATES OF DUTY ON BAR IRON. FORGINGS, NAILS, ETC.

On bar iron, rolled or hammered, com-prising flats not less than I inch or more than 6 inches wide, nor less than ½ inch or more than 2 inches thick; rounds not less This branch of our subject will bear fur-ter examination. During 1878, a year hich embraced the darkest period of the more than 2 inches square, I cent per

On bar it on, rolled or hammered, compris ing flats less than I inch or more than 6 inches wide, or less than 1/4 inch or more than 2 inches thick, rounds less than 1/4 inch or more than 2 inches in diameter, and squares less than 1/4 inch or more than 2

inches square, 14 cents per pound.

But all iron in slabs, blooms, loops or other forms, less finished than iron in bars, and more advanced than pig iron, except castings, shall be rated as iron in bars, and pay a duty accordingly, and none of the above iron shall pay a less rate of duty than

35 per cent. ad valorem.
On wrought-iron beams and girders, channel bars, deck and bulb beams, column seg-ments, tee and angle bars, and on all struc-tural iron, and on all iron rolled to a shape r section other than round, flat and square bars, 1½ cents per pound.

On iron bars for railroads or inclined

planes, weighing more than 30 pounds to the yard, 70 cents per 100 pounds; weighing 30 unds or less to the yard. I cent per pound. On all iron, in bars of whatever shape, and on all iron of irregular shape or section, which has been cold rolled or cold hammered,

process of rolling or hammering additional to ordinary process of hot rolling or hammering, 21/2 cents per pound, on slit rods, 1½ cents per pound.
On slit rods, 1½ cents per pound.
On all descriptions of rolled iron not otherwise provided for, 1½ cents per pound.
On cut nails and spikes of iron, 1½ cents

or which has been finished or polished by any

On cut iron or steel tacks, brads or sprigs, not exceeding 16 ounces to the thousand, 2½ cents per thousand; exceeding 16 ounces to

On wrought iron or steel nails not otherwise provided for, and on iron or steel spikes, rivets, bolts, nuts, washers, and wagon hardware, and horse, mule or ox shoes, 2½ cents per pound.

On horseshoe nails, hob nails and wire

nails, made of iron or steel, 5 cents per

On mill irons, shafting and mill cranks of wrought iron, and wrought iron for ships, steam engines and locomotives, or parts thereof, weighing each 25 pounds or more, 2

cents per pound.

On anvils and iron cables, or cable chains or parts thereof, 2½ cents per pound. Provided, that no chains made of wire or rods of a diameter less than 1/2 inch shall be consid

red a chain cable.

On chains, trace chains, halter chains and fence chains, made of wire or rods not less than ¼ inch in diameter, 2½ cents per pound; less than ¼ inch in diameter, and not under No. 9 wire gauge, 3 cents per pound; under No. 9 wire gauge, 35 per cent. ad valorem

On anchors, or parts thereof, 21/2 cents per ound.

On wrought-iron railroad chairs and rail

On wrought-fron railroad chairs and rail splice bars, 2 cents per pound.
On bed-screws and wrought and cast-iron butts and hinges, and blanks for the same, 2½ cents per pound.
On steam, gas and water tubes and flues of wrought iron or steel, 3½ cents per pound.

On iron locomotive, car, or other tires, wholly or partially manufactured, or parts thereof, or blanks for the same, 3 cents per

On blacksmiths' hammers and sledges. track tools, wedges and crow-bars, 21/2 cents

On all kinds of iron or steel axles, or parts thereof, axle bars, axle blanks, or forgings for axles, without reference to the stage or state of manufacture, 2½ cents per pound.
On all forgings of iron or steel or on forged

iron, of whatever shape or in whatever stage of manufacture, not otherwise provided for, 2½ cents per pound.

On manufactures, articles, vessels and wares of iron not hereinbefore provided for.

or of which iron shall be the component ma terial or part of chief value, 35 per cent. ad PROPOSED RATES OF DUTY ON PLATE AND SHEET

IRON, ETC. On armor or other plate iron or steel or combination of iron and steel, finished or unfinished, not thinner than 11/2 inches, 3 cents per pound.

On boiler or other plate iron, sheared of unsheared, skelp iron sheared or rolled in grooves, and sheet iron, common or black, thinner than 11/2 inches and not thinner than No. 25 wire gauge, 1½ cents per pound; thinner than No. 25 wire gauge and not thinner than No. 20, 1½ cents per pound; thinner than No. 20 wire gauge, and all iron known commercially as common or black taggers iron, whether put up in boxes or

bundles or not. 2½ cents per pound.
On polished, planished or glanced sheet iron or sheet steel, by whatever name designation nated, 3 cents per pound.

On plate or sheet or taggers iron, by what ever name designated, other than the pol-ished, planished or glanced herein provided for, which has been pickled or cleaned by acid, or by any other material or process, or which is cold rolled, or single rolled, or proof by rolling, shall pay 1/2 cent per bound more duty than the corresponding gauges of common or black sheet or tagger

On sheets, or plates, or strips, or hoops, or bars, or bands of iron or steel galvanized or coated with zinc or spelter, or with a compound, alloy or mixture of metals, of which zinc or spelter is the principal component, 21/2

cents per pound.
On sheets, or plates, or strips, or hoops, or bars, or bands of iron or steel or taggers iron, coated with tin or lead, or with a mixture of which these metals are a componen part, by the dipping or any other process, 23,

ents per pound.
On iron or steel plates, or sheets, or hoops or bars, or strips, or bands, galvanized or coated with any metal by electric batteries r by any other process not otherwise pro

vided for, 2½ cents per pound.
On corrugated or crimped sheets or plate of iron, 2 cents per pound; on corrugated or crimped sheets or plates of iron or steel, if galvanized or coated with any metal, 3 cents per pound.

All shapes or blanks of iron or of steel, whether of sheet, or plate, or skelp, and whether common, or black, or galvanized, or coated with any metal, and if not herein otherwise provided for, shall pay ½ cent per pound more duty than is imposed upon the material of which such shapes or blanks are

made of iron or of steel, or of which iron o made of iron or of steel, or of which iron or steel shall be the component material of chief value, whether of sheet, or plate, or skelp, and whether common, or black, or galvan-ized, or coated with any metal, and whether wholly or partially manufactured, and if not herein otherwise provided for, shall pay a duty of 35 per cent, ad valorem, in addition to the rate of duty imposed upon the iron or steel from which they are made, or which shall be such component material of chief

PROPOSED RATES OF DUTY ON HOOP AND OTHER IRON.

On all hoop, band, scroll or other iron. without reference to length, and by whatever name called, 8 inches or less in width and not thinner than No. 10 wire gauge, 11/4 cents per pound: thinner than No. 10 wire and not thinner than gauge, 11/2 cents per pound; thinner than

No. 17 wire gauge, 134 cents per pound.
Provided, that all articles, whether wholly or partially manufactured, made from the hoop, band, scroll or other iron herein pro-vided for, or of which such hoop, band, scroll or other iron shall be the material of chief value, shall pay 1/4 cent per pound more duty than that imposed on the iron from which they are made, or which shall be such material of chief value. This proviso does not apply to "cotton ties," which shall pay the same duty as the hoop iron from which they are made. PROPOSED RATES OF DUTY ON STEEL AND MANUFACTURES OF STEWL.

MANUFACTURES OF STEML.

On steel ingots, cogged ingots, blooms and slabs, made by the Bessemer, pneumatic, Thomas-Gilchrist, basic, Siemens-Martin, open-hearth, or by any other process, weighing not less than 500 pounds each, and measuring not less than 500 pounds each, and measure not set that the first not set that the uring not less than 5 inches square or in least diameter of cross section of the ingots, cogged ingots, or blooms, nor less than 5 inches in thickness nor 10 inches in the width of the slabs, \$20 per ton. Provided, that when made by the crucible process the rates of duty shall be the same as those fixed upon these articles of less weight and smaller

On steel ingots, cogged ingots and blooms measuring less than 5 inches square or in greatest diameter of cross section, and weighing less than 500 pounds each, and all steel slabs measuring less than 5 inches thick and 10 inches wide, and weighing less than 500 pounds each; billets and bars and ta-pered bars, strips and bands of all shapes, lengths, weights and sizes; rods or bolts of all shapes and sizes; roas or botts of all shapes and sizes not in coils; sheets of all gauges, plates and plate slabs of all thick-nesses and widths; saw plates, tank plates, railroad splice-bars or fish-plates, railroad chairs, cut spikes and nails, strips, skelp, bands, hoop, scroll; steamer, crank and bands, hoop, scroll; steamer, crank and other shafts, wrist or crank pins, connecting rods, piston-rods; unusual, irregular, plair or corrugated, pressed or stamped shapes of sheet and plate steel or a combination of steel and iron, punched or not punched; hammer molds or swaged steel; gun barrel molds not in bars; clock-spring steel in strips or sheets, coiled or not coiled, and not hardened or tempered, but when polished and hardened or tempered it shall be classed s a manufacture of steel; pen steel in coils or sheets, ax-shaped steel, alloys used as substitutes for steel tools; all descriptions and shapes of dry sand, loam or iron-molded steel castings, valued at 6 cents per pound or steel castings, valued at 0 cents per pound or less, 2¼ cents per pound; valued above 6 cents and not above 10 cents per pound, 3 cents per pound; valued at above 10 cents per pound, 3½ cents per pound and 10 per cent ad valorem. On all steel bars, rods, strips or sheets which are cold-rolled, cold-

strips or sheets which are cold-rolled, cold-hammered or polished in any way in addition to the ordinary process of hot-rolling or hammering, I cent per pound in addition to the above schedule of rates.

On rolled or hammered steel beams, gir-ders, joists, angles, channels, car-truck channels, tees, columns and posts, or parts or sections of columns or posts, and star forms, together with all other structural shapes of steel, 134 cents per pound. shapes of steel, 134 cents per pound.

On all kinds of wheels for railway pur

poses, whether wholly or partially finished and on steel locomotive, car and other rail-way tires, or parts therof, wholly or partially manufactured, or ingots, cogged ingots, blooms, or blanks for the same, without re-gard to the degree of manufacture, 3 cents

in coils and loops, valued at 3½ cents per pound or less, I cent per pound; valued above 3½ cents per pound and not above 5 cents per pound, 1¾ cents per pound; valued above 5 cents per pound and not above 6 cents per pound, 2¼ cents per pound; valued above 6 cents per pound and not above 6 cents per pound a cents per pound. in coils and loops, valued at 3½ cents per pound; valued above o cents per pound, and not above 10 cents per pound, 3 cents per pound; valued above 10 cents per pound, 3½ cents per pound, and 10 per cent. ad valorem. But rolled steel rods in coils or valorem. Dut folice seed rous in coast of loops, galvanized or otherwise coated, and all descriptions of steel wire and wire of which steel is a component part of chief value, not otherwise specifically enumerated and provided for, shall pay the same duty as

On steel screws, commonly called wood crews, 2 inches or over in length, 7 cents per pound; over I inch and less than 2 nches in length, 10½ cents per pound; I nch and less in length, 13 cents per pound. On steel railway bars, and railway bars made in part of steel, I cent per pound.

On steel railway bar crop-ends, none of which shall exceed 18 inches in length; on steel ingot, cogged ingot, bloom, slab, and billet crop-ends, none of which shall exceed 4 inches in length; on steel filings and borngs and turnings, and on scrap steel of every description, \$8 per ton. But nothing shall be deemed scrap steel except waste or refuse steel that has been in actual use, and s fit only to be remelted or remanufactured.

On steel in any form not otherwise pro vided for, 3 cents per pound. Provided, however, that any article of steel substantially of a class covered by any of the fore-going paragraphs, but not specifically named shall pay the highest rate of duty fixed for the class to which it belongs.

On all manufactures of steel or of which

steel shall be the component material or part of chief value, embracing machines and parts of machines, tools, wares, utensils and vessels, whether wholly or partially manufac-tured or finished, not otherwise provided for, 45 per cent. ad valorem.

PROPOSED RATES OF DUTY ON IRON AND STEEL WIRE, ETC. On iron wire not less than No. 16 wire

auge, \$2 per 100 pounds, and 15 per cent. Over No. 16 and not over No. 25 wire gauge, \$3.50 per 100 pounds, and 15 per cent. ad valorem.

Over or finer than No. 23 wire gauge, \$4 per 100 pounds, and 15 per cent. ad val-

But iron wire covered with cotton, silk or other material shall pay 5 cents per pound in addition to the foregoing rates. Provided that no article made from iron wire, or of which iron wire is a component part of chief value, shall pay a less rate of duty than the iron wire from which it is made either wholly or in part.

Round iron in coils, galvanized or other-vise coated, and all descriptions of iron wire and wire of which iron is a component part of chief value, not otherwise specifically enumerated and provided for, shall pay the

same duty as iron wire.

Iron wire cloths and iron wire nettings made in meshes of any form shall pay a duty equal in amount to that imposed on iron wire of the same gauge, and 4 cents

per pound in addition thereto On wire spiral furniture springs, manufactured of iron or steel wire, 2 cents per pound, and 15 per cent. ad valorem.

On steel wire not less than No. 16 wire gauge, 2½ cents per pound and 20 per cent. ad valorem; less or finer than No. 16 wire gauge, 3 cents per pound, and 20 per cent

On steel wire commonly known as crinoline, corset wife commonly known as crino-line, corset and hat steel wire, and steel wire covered with cotton, silk or other ma-terial, 8 cents per pound. Provided that no article made from steel wire or of which steel wire is a component part of chief value shall pay a less rate of duty than the stee! wire from which it is made either wholly or in part.

Steel wire cloths and steel wire nettings made in meshes of any form shall pay a duty equal in amount to that imposed on steel wire of the same gauge, and 4 cents per pound in addition thereto.

pound in addition thereto.

Wire rope, wire strand, and chain of irom or steel wire, either bright, coppered, galvanized or coated with other metals, shall pay the same rates of duty that are levied. on the wire of which they are made

GENERAL PROVISONS. It is hereby enacted that all metal, with-out regard to the percentage of carbon con-tained therein, whether produced by co-mentation, or converted, cast or made from ron or its ores by the crucible. Bessemer, neumatic, Thomas-Gilchrist, basic, Siemenspneumatic, Thomas-Gilchrist, basic, Siemens-Martin or open-hearth process, or by the equivalent of either, or by the combination of two or more of the processes, or their equivalents, or by any fusion or other pronetal either granular or fibrous in structure, which is east and malleable, of whatever description or form, excepting what is known as malleable iron castings, shall be classed and denominated as steel

allowance or reduction of duties for partial loss or damage in consequence of rust or of discoloration shall be made upon any description of iron or steel, or upon any manufacture of iron or steel or upon any partially manufactured article of iron or

On all iron or steel, and on all manufacof iron or steel, and on all manufac-tures, wares, utensils vessels, and articles of iron or steel, or of which such metals, or either of them, shall be the component part of chief value, whether wholly or partially manufactured, there shall be levied, collected and paid no less rate of duty than the highand paid no loss rate of duty time the migh-est duty or rate of duty imposed upon any part of said goods in any of the forms in which it or they existed prior to or during their passage into the form or article on which the duty is to be levied. This shall which the duty is to be levied. This shall not apply to, nor in any manner affect, the articles specifically enumerated in this schedule by their commercial designation, but shall only apply to the articles designated in this schedule as manufactures of iron or steel, or of which iron or steel shall be the component material or part of chief release. omponent material or part of chief value,

component material or part of chief value, not otherwise provided for.

The Pig Iron Committee was first called.

Mr. W. H. Wallace, of Steubenville, appeared for the Committee on Pig Iron. He said this was the most unstable of all the departments of the iron business. At this time the cost of making gray forge iron is from \$19 to \$23 per ton. The latest quotations from England show that the same class of iron can be delivered on board at any of our seaports at an average of \$20 per ton.
This of course affords a margin of profit to
the manufacturer. For the first eight months of the present year the quantity of imported material was 341,780 tons of pig iron, which showed a large increase over the corresponding period of the previous years. It was the industry which paid lowest wages to the employee, and at the same time had least pro-tection. A large number of the furnaces tection. A large number of the furnaces would go out of operation if a better system of protection was not provided. Our furnaces do not average more than 50 per cent. of their aggregate capacity now, and if the present tariff of \$7 per ton is reduced it will be very disastrous, and it would be much better if it were restored to \$9, as it was exicute the reduction.

better if it were restored to \$9, as it was prior to the reduction.

Mr. Spearman, of Sharon, also a pig iron manufacturer, said he desired to add a few words to the remarks of Mr. Wallace. In his town there are nine furnaces, and seldom have more than four been in operation at any one time, owing to actual loss. In the any one time, owing to actual loss. In the boom of 1870 some of the loss had been re-covered, and he believed that if the duty on pig iron had been allowed to remain undis-turbed, all these furnaces would have remained in blast. He urged an increase, and mained in blast. He urged an increase, and said that if an advance was not made he felt sure a majority of the producers in his sec-tion would be compelled to suspend. Mr. Butler, of Youngstown, followed, giv-

ing a number of reasons why pig iron should be protected. He argued that all the pig iron consumed in this country should be made here, and that could only be done by in-creased protection. He claimed that if this rere done steel manufacturers and others would not be compelled to go abroad for a single ton. He referred to the duty on single ton. He referred to the duty on steel rails to show the benefit of protective duties.

steel rails to show the benefit of protective duties.

A colloquy ensued between Judge Underwood and Mr. Butler, during the course of which Mr. Butler was asked regarding the relative purchasing power of money in this country and England, which, not being able to answer, Mr. Jos. D. Weeks was called upon by Mr. Porter to answer. He said he had investigated the matter thoroughly, and had the figures to show that a dollar will buy more substantial food and ordinary clothing here than in England. Rent was a little higher, but the other necessaries of life were lower. This seemed to surprise Judge Underwood, who asked a number of questions, which led to an explanation by Mr. Weeks that the English workman lives cheaper than his American brother, because he cannot afford the same quality of food that the American enjoys. The question of clothing was then touched upon.

Judge Underwood segment to doubt the

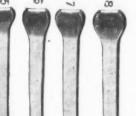
Judge Underwood seemed to doubt that Judge Underwood seemed to doubt that common clothing was as chean in this country as in England, but Mr. Weeks asserted that owing to the use of machinery in this country, manufacturers are able to undersell imported products in the chean clothing line. The same facilities are not enjoyed on the continent, and besides the population is a much larger in proposition to the so much larger in proportion to the area that wages are kept down. He was then examined at some length on the importation of pig iron,



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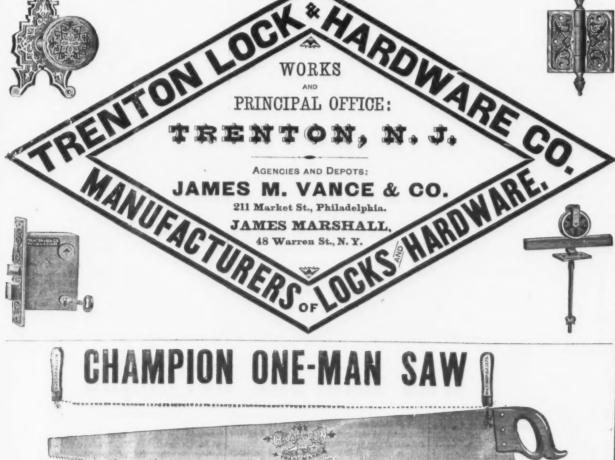
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able; as shall bear a proper relation to the duties on other classes of iron, and afford sufficient protection to the labor and capital GROWING TARIFF SENTIMENT. employed in their manufacture. In 1874, when the iron business was at its lowest ebb, result was that prices were reduced from 7 cents per pound to less than 5 cents. The English company had managed to keep the prices up, and it was only by the interference

Mr. Underwood—Didn't you manufactur-

Mr. Oliver—Wasn't that \$8,000,000 made then ties were all imported from England? Mr. Clark—It was made by the American Mr. Clark—It was made by the American Cotton Tie Company, operating the McComb's or "Arrow" patent. As soon as the mills here entered the market prices dropped. That amount couldn't possibly have been made here, because the total value of all the ties made here would not aggregate over \$4,000,000. Foreigners have made all the money realized by the sale of cotton ties.

On motion of Mr. Oliver, the Commission adjourned until 2 o'clock. At the afternoon session Mr. Moen appeared for the wire manufacturers, and spoke as follows:

which we trust will meet your approval. We have made no reduction from the existing rates of duty as established by law, though we should have been glad to do so if there could be a reduction in the price of raw material. We have made some changes in the wording of the provisions which we recom-mend, and which, we think, are an improve-ment over the language now in use in the existing tariff, being more simple, and, therefore, less liable to misapprehension by all parties

An extended colloquy followed as to compound duties, barb wire, wire rods, &c. Mr. Moen explained that compound duties were necessary because of the great value of some kinds of wire, on which the specifics proposed would not be high enough.

# WASHINGTON NOTES.

(From Our Own Correspondent.)
WASHINGTON, D. C., October 13, 1882.

Ex-Speaker Randall, writing to a friend in this city the day after the election in Ohio, claimed that the next House would certainly be Democratic. While the revolution in the political complexion of the Ohio delegation was generally caused by local issues, there is some concern here as to the effect that this may have upon the National issue, the tariff. The most sanguine of the friends of the tariff, do not suppose that final action upon that subject will be reached during the approaching session. There is sufficient free-trade influence in the lower branch of Congress to protract discussion to such a length that the protract discussion to such a length that the House will be compelled to relinquish its House will be compened to reiniquish its efforts in order to pass the regular appropriation bills in time for adjournment fixed by the Constitution and the laws. This will throw the settlement of the tariff question into the Forty-eighth Congress, and gives the elections more significance than otherwise would be the case.

the elections are wise would be the case.

THE ELECTION OF HURD.

The ultra free-trade notions of Frank Hurd, of the Toledo district, are well known. When he was relegated to private life, he made special notoriety of his advocacy of free trade, and, it will be remembered, went to New York and made himself conspicuous in connection with a notorious free-trade organization. In the turn of the wheel of organization. In the turn of the wheel of fortune, politically speaking, Mr. Hurd reapfortune, and the constant of the Consultation of the Consultatio friends of American industry will have an opportunity to see him once more in the halls of national legislation, and to contemplate his course in view of his utterances. According to his Ohio friends here, he did not qualify his free-trade notions in the least, but went through by a decided majority, despite his free-trade views and on his free-trade record. From this standpoint the Toledo district took a grave responsibility upon its shoulders, when it sacrificed the tariff in order to be avenged on the subject of prohibition. The intensity of the feeling, however, on the part of a large share of the voters, may best be judged by the vote of McKinley, the champion of protection in Ohio. The Ohio delegation in the present Congress stands: Republicans, 15; Democrats, 5. In the new apportionment, Ohichas 21 districts, and, from the latest reports will appear in the Forty-eighth Congress with: Democrats, 13; Republicans, 8.

and the effect that a reduction of the duty will be remem-would have on the Bessemer steel manufac-bered as the Secretary of the Navy at the would have on the Bessemer steel manufacturers in this country.

Mr. Wm. Clark, of the Solar Iron Works, represented the hoop iron interests. He cited the fact that the cost of making hoop iron in England is only 38 per cent. of the cost here. Bar iron is rated at 1½ cents per pound, and cotton ties alone, of all other grades of iron, are only ½ cent. What we want is to have such rates of duty on hoop, band, scroll and other similar iron as shall be fair and equitable; as shall bear a proper relation to the

Assistant Secretary of the Treasury New says that the tariff element in Indiana has we went into the cotton-tie business, and the become thoroughly aroused to the necessitie of the situation. He claims that the tariff vote in the Democratic party in that State cents per pound to less than 5 cents. The English company had managed to keep the prices up, and it was only by the interference of American manufacturers that they were reduced. Now ties are only worth about 3 cents per pound, which is less than it costs to make them.

Judge Underwood—What amount of protection do you ask?

Mr. Clark—A specific duty of 1½ cents per pound would place that branch of the iron industry on a par with the others, and that is all we ask.

Underwood—Do you think it just to tax every bale of cotton an additional 15 cents in order to make business for your millst Clark—I do not think it would be a tax.

The cotton raiser gets his iron very much the cotton raiser gets his iron very much cheaper than the mechanic and those in other branches of business. There is no justice in giving the planter any advanta e justice in giving the planter any advanta e cover others.

Worthy sagacity realizing this facture wisely coming to their support. It is now a question of considerable anxiety to the old free Trade wing as to whether they can any longer control the State in their interests. Senator Bayard, during a recent visit here, remarked that Delaware was making s make about \$8,000,000 out of cotton ties? rapid strides in industrial development, and Mr. Clark—I do not think, all things contact that it would be essential to adjust the a dered, that the manufacturers here ever made a dollar out of cotton ties, and all on account of the tariff regulation.

Mr. Olivar Warnly the con-

The appointment in New York recently, by a meeting of iron-ore producers, of a committee on organization, with a view to the systematic advancement of the interests of this branch of mining industry, it is underthis branch of mining industry, it is understood here, grew out of the disposition shown by some parties represented at the Crescon Convention to rule iron ore entirely out, or to maintain it at a nominal rate in the tariff schedules. The selection of ex-Senator William H. Barnum, of Connecticut, as the chairman of the committee on organization, and the appointment as its manulars of such and the appointment as its members of such influential and well-known parties as Smith M. Weed, of Plattsburgh, N. Y.; F. S. Witherspoke as follows:

"We submit below the rates of duty upon iron and steel wire, and also upon manufactures made from iron and steel wires, which we believe to be fair and reasonable, and which we trust will meet your approval. We have made no reduction from the existing rates of duty as established by law, though we should have been glad to do so if there could be a reduction in the price of raw ma a this matter.

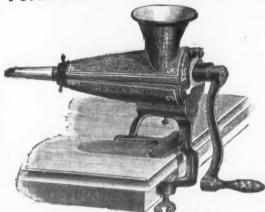
The influence of ex-Senator Barnum among his political friends in Congress will give the movement positive strength, provided he can induce them to recede in a measure from their "tariff for revenue only" doctrines. Mr. Barnum, when in the Senting doctrines. Mr. Barnum, when in the Sen-ate, was generally in advance of his col-leagues on tariff matters. It now, however, remains to be seen whether they will favor adding to the list, when their whole policy has been to diminish it. There are also many Republic ans of influence who favor reduction of duties on raw materials, and in-creasing them on manufactured articles. Representatives who have important mining interests in their districts, on the other hand. interest; in their districts, on the other hand, claim that the labor of the mines need pro-

ver was as marvelous as an evidence of the expansion of civilization as it was remarkable as an exhibit of the material development of the country. The inexhaustible auriferous wealth of that region and the vast amount of capital and enterprise applied to the working of mines, were in themselves the best guarantees of the sup-

| From Aix-la-Chapelle                  | \$9.158   |
|---------------------------------------|-----------|
| Bremen                                | 341,023   |
| Cologne                               | 159,194   |
| Crefeld                               | 423,212   |
| Dusseldorf                            | 173.415   |
| Frankfort                             | 1,870     |
| Munich                                | 1,614     |
| Sonneberg                             | 8,528     |
| Stuttgart                             | 417       |
| Total                                 | 1,110,157 |
| The exports of steel were:            |           |
| Cologne                               | \$36,769  |
| Mayence                               | 551       |
| Munich                                | 2,114     |
| Total                                 | \$39.504  |
| The exports of machinery were:        |           |
| Crefeld                               | \$2.4 2   |
| Dusseldorf                            | 952       |
| Frankfort                             | 1,380     |
| Manheim                               | 6,996     |
| Mayence                               | 4,001     |
| Stuttgart                             | 405       |
| Total                                 | \$17,103  |
| In return for this there is also a la | non our   |
| In recard for this there is also a la |           |

As a contrast to the result in Ohio we find the State of West Virgin a wheeling into the line of tariff States. John W. Goff, apidly growing.

# KIESER'S MEAT CUTTERS. John T. Lewis & Bros.



Double,

Shearing Cut,

Cast Steel

KNIVES.

Will Thoroughly Cut

BEEF OR PORK.

" Monarch" Cutter and Stuffer.



EASILY WORKED & CLEANED. THE ONLY PRACTICAL

MEAT CUTTER MADE.

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FLY AND CEARED WHEELS FOR BUTCHERS' USE. Every Cutter Warranted. KIMBALL SHOVEL CO., Sole Patentees and Manuf'ers, Baltimore, Mo



# GREATEST ROCK BREAKER ON EARTH.

CAPACITY A TON A MINUTE. Guaranteed to do Double the Work of any other or Money Refunded. SEND FOR CIRCULARS,

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ANCHOR BRAND TACKLE BLOCKS.

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ouperior Work at Reasonable Prices. \* ESTIMATES \* FURNISHED \* CHICAGO STEEL HORSE SHOE CO. 20 West Lake St. COMPANY'S WORKS CHICAGO. TPULLMAN (NEAR CHICAGO)

## The American Dynamo-Electric Machine, For Electro-Plating, Electrotyping, &c.

Requires no Water.

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Latest Improvements.

Cannot Reverse Current.

# THE ZUCKER & LEVETT CHEMICAL CO., Gen. Agents Manufacturers and Importers of NICKEL PLATERS' SUPPLIES.

540 542 544 & 546 WEST 16TH STREET, N. Y.

S. CHENEY & SON, MANLIUS, N. Y., MANUFACTURERS OF LIGHT AND MEDIUM WEIGHT

# GRAY IRON CASTINGS. METAL PATTERN MAKERS AND JAPANNERS

BLAKE New Haven Conn.



BLAKE'S Challenge Rock Breakers.

See The Iron Age first issue of the

No. 231 South Front St., PHILADELPHIA.



MANUFACTURERS OF Pure White Lead, Red Lead, Litharge, Orange Mineral, Linseed Oil, AND PAINTERS' COLORS

# Brooklyn White Lead Co



White Lead, Red Lead & Litharge. No. 182 Front Street, NEW YORK,

Angines, Boilers, Stamp Mills and JOHN JEWETT & SONS Manufacturers of the well-known brand of Manufacturers of the well-known brand of

WHITE LEAD. PERFECTLY PURE

> TE L TRADE MARE ALSO MANUFACTURERS OF

LINSEED OIL. 181 Front Street, NEW YORK



The Atlantic White Lead and Linseed Oil Co., Manufacturers of

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LINSEED OIL, Raw, Refined and Boiled.

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# PURE WHITE LEAD.



Lead Pipe and Narrow Sheet Lead. BROWN, Treas. SALEM, MASS.

H.B. SMITH MACHINE CO. S 925 MARKET ST. PHILADELPHIA CELEBRATED WOOD WORKING

For Car Shops, Planing Mills, &c. Also Machinery for all pusposes Correspond with as

# THE THEAL AND MCCULLUM IRON MINES

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MANUFACTURERS OF

AXE, PICK, SLEDGE, HAMMER AND OTHER HICKORY HANDLES.

# Also CARRIAGE and WAGON SPOKES.

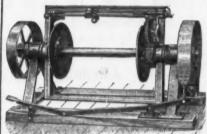
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IN USE IN EVERY PART OF THE UNITED STATES.

A uniform and satisfactory Hay and Straw Rope can be made only upon this style of Machine.



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N. B.—Tests of materials made daily at our Works and certificates furnished. Reports copied and kept confidential.

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OVER 600 IN USE.

The following parties either have that of the construction.

Cedar Point Iron Co., N. Y.

Dunbar Furnace Co., Pa.

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R. H. Coleman, Lebanon. Pa.

Chester Rolling Mill Co., Pa.

Davenport, Fairbaira & Co., Pa.

Paxton Furnaces, Pa.

Spearman Iron Co., Pa.

Milton Coal and Iron Co., Ohlo

Winona Furnaces, Ohlo.

Mosa & Marshall, Ohlo.

H. Campbell & Sons, Ohlo.

Hocking Valley Iron Co., Ohlo.

Meter Iron Co., Ill.

Inton Iron and Steel Co., Tenn.

Evance Co., Ry.

Louded Gurner Co., Couthern Co., Control Co.

Coutherts States C. I. and S. Co., Tenn.

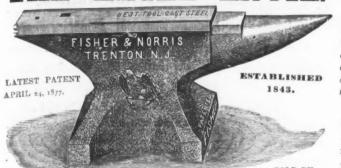
Evance Furnace Co., Tenn.

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# THE "EAGLE" ANVIL.



Better than the Best English Anvil. WELDED, perfectly true; of hardest temper and never to come off or "settle." It does not bounce the hammer back, and therefore can do more work with lighter hammer. Horn of tough untempered steel, never to break or bend. Only Anvil made in United States fully warranted as above. None genuine without our trade-mark.

WARRANTED!!

N. B .- That the " Eagle" Anvil is the only one made at Trenton, New Jersey, and it must not be mistaken for an Anvil in the market called Trenton, but which is really of foreign manufacture, and an imported imitation of the English Anvil.

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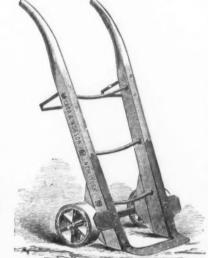
Philadelphia—JAMES C. HAND & CO. Boston-GEORGE H. GRAY & DANFORTH.

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STORE TRUCK

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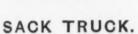
STORE TRUCK.

| Outside Wheel |
|---------------|
|               |
| <br>\$ 5.00   |
| <br>7.00      |
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| <br>15.00     |
| 17.50         |
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BARREL TRUCK.

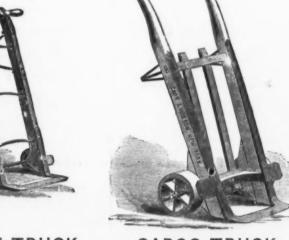
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CARPET TRUCK.

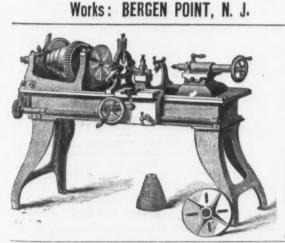


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DISCOUNT TO THE TRADE.

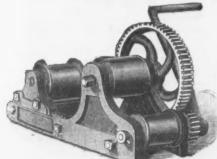
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Tire Benders, Tuyere Irons, Revolving Clothes Irons, Barn Door Hangers, Barn Door Rail, Stay Rollers, Barrel Presses, &c.

Would solicit articles to manufacture

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EGG BEATER, JUDD'S and other SHADE FIXTURES, PIC-TURE NAILS, and a large line of UPHOLSTERERS' and FANCY HARDWARE and METAL NOTIONS.



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We desire to call special attention to our line of

# Nickel Plated Nut Picks, Nut Crackers and Fruit Knives.

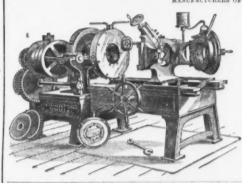
They are fine in appearance, durable and very heap. They are put up in sets in handsome imitation Morocco boxes, or any of the articles alone

We also have a fine line of

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For Pipe Mill and Steam Fitters' Use.

# TAPPING MACHINES For Steam Fitting.

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Coal in Asia Minor .- A Bagdad journal es the discovery of a coal mine in the district of Suléimanié, near a tributary of the Tigris. The coal which has been extracted is said to be of excellent quality. The extent of the c.al field is not yet known, and the richness of the mine can consequently not be determined, but it is calculated from not be determined, but it is calculated from what is already known that there is sufficient coal to supply all the steamboats on the rivers Euphrates and Tigris during 10 years. The coal basin probably extends in the direction of the Tigris, and suitable preparations have been made to examine the mine and make a topographical map of the locality, and also to project a carriage road, by means of which the coal may be conveyed to the

An Englishman has just established a anufactory of jewsharps in Troy. It is manufactory of jewsharps in Troy. It is said that there are only two others in the country, one in this city and the other in Boston. A simpler instrument than the jewsharp it would be hard to conceive, but the process of manufacture comprises no fewer than thirty separate operations. The inventor of that humble instrument, which has been vibrating all over the world for centuries, is unknown to fame. At the be-ginning of the present century the jewsharp was developed by combining several differ-ent instruments, each with a separate pitch, and in 1827 Eulenstein, a native of Wurtenberg, made a sensation in London by playing upon sixteen at once.

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# J. SEIDEL.

Commission Merchant, CHARLES CHURCHILL & CO.,

HABANA, CUBA,

Will be happy to accept the representation of first-class houses manufacturing hardware.

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COLLINS & CO., 212 Water Street, New York.

# BLAST FURNACES.

We desire to call attention of proprietors and superintendents of the above to the superiority of our.

# De-Oxydized Bronze Tuyeres.

The density of the metal causes it to give better results, and so last longer than Phosphor Bronz or any other alloy of copper and tin.

We refer to

H. W. ELLICOTT & SON, MARYLAND FURNACE, STICKNEY IRON CO., A. G. COFFIN,

And others. We test all tuveres up to 200 lbs. to the square

inch before shipping.

# PHILADELPHIA SMELTING CO.

S. E. Cor. Twelfth and Noble Streets, PHILADELPHIA.

## LEIGH'S **DISCOUNT BOOK**

Specially arranged for the use of the HARDWARE TRADE. Acknowledged by ALL the best work of the kind ever published. Price by mail ONE DOLLAR. Address

E. B. LEIGH, St. Louis Elevator, St. Louis, Mo.

# Wanted.

A Civil and Mining Engineer of long experience Undoubted references as to ability and integrity required. Address

LOCK BOX 32. Philadelphia, Pa.

# Wanted Second Machinery.

One 36-inch Back Gear Lathe. One Planer, 24 in. x 24 in. One Upright Drill. Medium Size.

Stating price and particulars.

Address, BOX 26 PALMER, MASS.

# For Sale.

Shear to cut 14 inch by 16 inch.

A. G. BROOKS & WINEBRENER,
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WANTED.—Position with relling mill, either iron or steel or natifactory. Has had large experience in the sale of Iron, steel and nails; is thoroughly equalinted with dealers in and large consumers of merchant iron, seed, nails, boiler plates and sheet iron. Many years connected with large manufacturers of iron, steel and nails; at present connected in a feeponsible and official canacity with a mill whose broduct has an excellent and extended reputation. Would accept position in charge of correspondence and sales, in office, or would accept management of branch house or agoncy in weste nor estern city, or would travel. Satisfactory reasons for desiring to chauge. Address.

Office of The Iron Age, 8; Reade et., New York.

SINGLE YOUNG MAN well posted in Hardware, competent to fill a responsible possion, and wiking to attend strictly to bus nessives to correspond with a good firm having augening for such a man. Can furnish A 1 references.

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IMPORTANT SALE OF

# Table Cutlery, Carvers, &c. E. BISSELL & CO.,

WHOLESALE AUCTIONEERS,

Will make a

Large and Peremptory Sale of Table Cutlery, Carvers, Plated Ware, &c., On THURSDAY, November 2,

At re o'clock A. M.,

At 83 Chambers and 65 Reade Sts., N. Y.,

comprising in part over 12,000 dozen Table Knives and Forks, desirable patterns in Cocoa, Bone, Ebony, Ivory, Rubber, Celluloid, &c. Also for THANKSGIVING AND HOLIDAY TRADE, 2000 pair Carvers, in Bone, Ebony, Cocoa, Ivory, Stag and Rubber.

500 pair and sets elegant carved handle Walrus Carvers.

Carvers, so dox, richly carved Pearl Landle Dessert and Table Knives, plated blades, 500 dox, Plated Knives, 12 ox, Plate, 1000 dox, Plated Tea and Table Spoons and Forks, 4, 8 and 12 ox, plate on 18 per cent, nickel silver. 150 cases fine Plated Knives and Forks, 12 oz plate.

plate. 1cco sets Plated Moits, 3 and 4 ps. sets. Also a line of English Table Cutlery, Carvers, Moits, &c. Also a large line of

Pocket Knives, Shears, &c., &c. The sale will be worthy the attention of the

# 21 Cross Street, Finsbury, LONDON, E. C., ENGLAND.

New York Office, 495 Greenwich Street.

We have been introducing American Machinery and Tools in Great Britain and the British Colonie and on the Continent since 1862, and are the agents of many of the largest American manufactur

Having extensive facilities and connections, we are prepared to introduce new goods, especially

## Machinists' and Wood-working Tools and Machinery,

and would invite manufacturers to confer with our New York office, where full information will be given

## Wanted.

A business firm, well established in the West, desires to act as agents for manufacturers of Brass and Iron Goods, Machinists and Piumbers' Supplies, Tools, Metals, Crucibles, Steam Packing, &c., &c. Will buy good patents or manufacture on royalty.

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Address, Office of The Iron Age, 38 Clark St., Chicago, Ill.

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Partner or manager for Philadelphia house of a well established iron importing firm. A wellmown Philadelphian with good Western connec tions preferred.

Office of The Iron Age, 220 S. 4th St., Phila., Pa.

# Partnership.

A young man with 15 years' experience in Hardware and can command \$4,000, would like partnership in some established Hardware House; or he would accept a pooltion with some good house. Best of references furnished.

Address C. O. F. BROWN,
Cadiz, Ohio,
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## CORRESPONDENCE IS SOLICITED with parties having

# MACHINERY TO BUILD.

Heavy work preferred.

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THE HARTFORD ENGINEERING

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The machinery complete of a plate and sheet mill. Machinery modern, ready to set up and in good order. Address

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# To Brass Foundries. To Brass Manufacturers.

Our new foot press, for cutting off GATES from brass castings by FOOT power, is now rendy. Weight, 22 ths. Frice complete, 85th, net. A boy can operate it easily. We warrant them to give the most perfect satisfaction. PEERLERS PUNCH AND SHEAR CO. 36 W. Dey Street, New York.

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TO PURCHASE A Hardware Store in the West. Address, with

full particulars.

Office of The Iron Age, 83 Reads St., New York

Office of The Iron Age. 53 Reade St., New York.

DRILL PIESS FOR SALE.—New Upright Fower Drid Press, swings at inches, back geared, quick proura motion, steel spindle, experior finish; weight, like hight, 6 feet; price, 8210.

PEFRLESS PUNCH AND SHEAR CO.
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# Special Notices.

SECOND-HAND AND NEW

# MACHINERY.

SEPTEMBER 26, 1882.

The following new and improved Machinists' Tools are part of what we have for early delivery : 42 in. swing, 16 ft. bed. New Engine Lathe. Sept, 35. 26 in. awing, 14 ft. bed. Sept, 30. 32 in. x 8 feet. Planer, New. Sept, 30. 38 in. x 10 ft. Planer. New. Sept, 30. 38 in. x 12 ft. Planer. New. Sept. 30. 12 I stroke Slotting Machines. New. Oct. 10.

The following on hand

The following on hand

22 in, swing, 11\(^1\) ft, bed, Engine Lathe. New,

23 in, swing, 12 ft, bed, Engine Lathe. New,

10 in, swing, 8 ft, bed, Engine Lathe. New,

10 in, swing, 8 ft, bed, Engine Lathe. New,

11 in, swing, 8 ft, bed, Engine Lathe. New,

12 in, swing, 0 ft, bed, Engine Lathe. New,

13 in, swing, 6 ft, Hand Lathe. New,

14 in, swing, 6 ft, Hand Lathe. New,

15 in, swing, 6 ft, Hand Lathe. New,

16 in, x 7 ft, Planer. New,

16 in, x 7 ft, Planer. New,

18 in, swing Upright Drills. B. G. & S. F. Ne

18 in, swing Upright Drills.

18 in, swing I. B. G. & S. F. New,

19 in, Drill. B. G. & S. F. New,

10 in, Drill. B. G. & S. F. New,

10 in, Drill. B. G. & S. F. New,

10 in, Drill. B. G. & S. F. New,

10 in, Drill. B. G. & S. F. New,

10 in, Drill. Plain.

10 in, Drill. Plain. B. G. & S. F. New. 120 in. Drilis. Plain.
18 in. Bench Drill.
14 spindle Drill. New.
15 spindle Drill. New.
15 spindle Drill. New.
14 spindle Drills. ad hand.
18 all. Shapers. New.
18 in. Shapers. New.
18 in. Shapers. New.
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Lot of Forges, 1 Railway Saw Bench, 1 Foot-power

Cold-rolled Shafting, Pulleys, Hangers, Couplings &c., always in store

The George Place Machinery Company 121 Chambers and 103 Reade Sts.,

> New York. JUST PUBLISHED.

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IRON AND STEEL WORKS

UNITED STATES.

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This work embraces Lists with very full particulars of all Iron and Steel Works in every State and Territory, classified under the following headings: eadings:

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Recently Abandoned Furnaces.
Rolling Mills and Steel Works.
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Rail Mills.
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Crucible Cast Steel Works. Open Hearth Steel Works. Steel Manipulating Works. Miscellaneous Steel Works. Forges.

Bloomaries. Recently Abandoned Forges & Bloomaries.
Wire Rod Mills.
Car Axie Manufactories.

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# For Sale or Exchange. One Six Spindle Burdict Tapping Machine.

One Lewis, Oliver & Phillips Bolt Header. One American Bolt Header. (Lowell.) Two Schlenker Bolt Cutters, 36 to 116, with dies. SHUMWAY, BURGESS & CO., Michigan and Franklin Streets, Chicago.

Notice To Foundry Men.—The undersigned having had over 20 years' practical experience trail branches of the foundry business, is now open for an engagement as Foreman or Superiotendent; is well acquainted with heavy or light work, Loam, Dry of Green Sand, and can also estimate on work; has had charge of some of the largest shops in the West; best of references furnished. Address

Office of The Iron Age, 36 & 38 Clark st., Chicago.

# Wanted.

A Partner with \$5000 to \$10,000 in a Foundry and Machine Business, established in 1824. For particulars, inquire of

I. H. COLLER. Poughkeepsie, N. Y.

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Bought and Sold by WM. WILLIS MERRILL,

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# EXCHANGE MEMBERSHIPS. Wanted.

A "Stockman," also man to get out orders in Wholesale Hardware House. Must have good eferences as to abilty in this capacity.

> PEAVEY BROS. Sioux City, Iowa.

WANTED.—A situation as Practical Sheet Steel Roller or Master Mechanic of Steel Rolling Mill. Address ress Office Box 0, Middletown, N. V. CITUATION WANTED.—City or Country. In years' experience in Hardware business; go references; resonable salary. Address.

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# NEW IRON WORKING MACHINERY

ENGINE LATHES.

ENGINE LATHES,

28 in. swing, 18 foot bed. Fitchburg,
28 in. swing, 18 foot bed. Fitchburg,
24 in. swing, 18 foot bed. Fitchburg,
24 in. swing, 14 end of foot bed. Fitchburg,
24 in. swing, 14 end of foot bed. Fitchburg,
25 in. swing, 14 foot bed. Fitchburg,
25 in. swing, 15 foot bed. Fitchburg,
25 in. swing, 15 foot bed. Fitchburg,
16 in. swing, 10 and 12 foot bed. Gray,
18 in. swing, 10 and 12 foot bed. Raisdell,
17 in. swing, 6 and 8 foot bed. Fitchburg,
14 in. swing, 6 and 8 foot bed. Fitchburg,
15 in. swing, 6 and 8 foot bed. Fitchburg,
15 in. swing, 6 and 8 foot bed. Blaisdell,
No. 2 Cabinet Turrett Lathe, 18 in. by 6 ft.
No. 180, Arbor Fix Lathe, 18 in. by 5 ft.
No. 1 and 3 fox Brass Lathes.

PLANERS, SHAPERS & SLOTTERS. oin. x 36 in. x 9 foot Planer (ad hand; good order Wheeler, 39 in. X 5 in. X 5 foot Planer. Fitchburg, 39 in. X 5 in. X 5 in Flaner. Wheeler, 24 in. X 5 and 7 ft. Planer. Wheeler, 24 in. X 5 in. X 5 foot Planer. Fitchburg, 22 in. X 50 in. X 5 foot Planer. Fitchburg, 15 in. stroke Shaper. Goold & Eberhardt, 10 in. stroke Shaper. Fitchburg, 12 in. stotter (swing 50 in.) Hewes & Phillips.

48 In. Radial Drill, double-geared, self-feed, slotted and planed bed. Betts.
30 In. back-geared automatic. Prentice.
25 In. back-geared, self-feed. Fitchburg.
25 In. quick return. Blaistell.
19 In. quick return. Blaistell.
23 and 4 spirdle drills. Garvins.
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These tools are on hand and for quick delivery.

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LARGE SALE OF Hardware and Stamped Tinware,

Comprising in part a general assortment of Hard ware, Hatchets, Hammers, Files, Fluting Ma chines, Wooden Ware, &c., &c. Also a full and complete line of Stamped Tinware, direct from factory, comprising a full assortment. Also a large and desirable line of

ENAMELED TEA & COFFEE POTS, Nickel-Plated Trimmings and very desirable. WE OFFER OUR

CLEANED HORSENAIL SCRAPS, Quite free from scale and dust, and warranted of the very best

SWEDISH CHARCOAL IRON,

For continual supplies of about 50 tons per month. MOELLER & SCHREIBER,

Manufacturers of Machine-Forged Horsenails BEHLIN, N., GERMANY. FOR SALE AT A BARGAIN.

The Canistoga Lock Works, consisting of complete sets of Brass Patterns, five sizes... Machinery adapted for their manufacture, stock and good will. Satisfactory reasons for quitting. Call or or address

EZRA F. LANDIS,

# FOR SALE-BUSINESS.

A well established Hardware, Stove and Tin ware business in a live town, in Western New York; also a complete set of Tinners' Machines and Tools, which will be sold separate if desired Satisfactory reason for selling.

P. O. Box 58, Sherman, N. Y.

# For Sale.

35 Horse Portable Engine and Boiler, in excel-lent condition, with governor, grates and smoke stack; shell of boiler \$\frac{1}{9}\) in thick; weight complete, to,cool bs.; price, \$825. Also, 6, 8, 10, 12, 75, 18 and 35 horse-power engines. Boilers, pumps and other machinery at low prices.

S. M. YORK, Cleveland, O.

# 25-Inch Lathes.

A lot of as-inch lathes designed to equal the bes Philadelphia tools, will soon be ready for delivery.

OHL & CO..

# E. NEWARK, N. J.

Blowers For Sale. No. 6 Sturtevant Exhaust Fan and Counter Shaft, No. 4 Sturtevant Pressur- Blower, refitted, 2 4#-Inch Alden Pressure Blowers, 2 Smail Power Piston Blowers, 1 Steam Piston Blower.

A. G. BROOKS & WINEBRENER, 261 N. 3d St., Phila., Pe.

# New Machinery For Sale.

One Power Bolt Cutter, 14 in. to 114 in. Six Emery Grinders. Two Milling Machines. One 28 in. Drill Press. Three Hand Lathes. Two 22 in. Drill Press. One 14 is. X to in. Serew Cutting Lathe. One 12 in. X 4 in. Serew Cutting Lathe. One 12 in. X 4 in. Serew Cutting Lathe. One 12 in. X Cutting Lathe. One Milling Lathe. One 84 in. Serew Cutting Lathe. One Seroll Saw. One 84 in. Seroll Saw. Gear Cutting Attachments for Lathes. Scroll Saw. Gear Cutting Attachments for Lathes. One Second-Hand 24 in. Pony Finers. Balting, Hangers, Fulleys, &c. 16 & 18 S. Howard Street, Baltimore,

# FOUNDRY PLANT FOR SALE.

2 Blowing Engines, with steam and blowing vlin.ers,  $0 \times 24$  and  $36 \times 24$  respectively; in good anning order; made by the Peoples' Works, Phil-Jelphia. 2 Proving Presses. One for 4, 5 and 6 feet pipe, ad one for 30 inch and less pipe; both with pumps nd gearing complete, 14 13-inch Core Barrels (Wrought Iron), 2 Straw Rope Twisting Machines,

Apply to

L. & R. WISTER & Co.,

233 South Fourth Street, Philad lphia.

WANTED.—Cudery and Hardware position by
a commercial traveler of 3 years' experience on the road and a years in the trade. Have
a nice trade through remsylvatit, Ohio, Kentreky and indiana, and wed up in the Cultery and
Raz r branc es and known to all the Western and
Southern trade.

Address

JAMIESON,
Office of The Iron Age, \$3 Reade St., New York,

Care Age of Steel, St. Louis, Mo.

# Special Notices. For Sale.

New York Safety Power Co.'s Upright and Horizontal Engines, 2 to 100

## H. P., for immediate delivery. HENRY I. SNELL, 135 North Third St., Philadelphia, Pa.

ALSO

One 18 in. Cyl., 30 in. Stroke Engine, Corliss Pattern. One 14 in. Cyl., 30 in. Stroke Engine, Slide Valve, One 12 in. Cyl., 30 in. Stroke Engine, Slide Valve, One 250 lbs. Direct-Acting Steam Hammer One 2 ft. x io in. Harrington Lathe. One 5 ft. 12 in. Bement Lathe. One 12 in. Compound Planer, N. Y. Engine Co. Six Pipe Cutting Machines. Three Pipe Testing Machines. One 45-in. Upright Drill. Sellers.

One Stillwell Heater and Purifier. Two Vertical Nut Tappers, 3 spindles. Three Nipple Cutting Machines. Three Cylinder Boilers, so in, by so ft. One 50 lb. Peck's Drop with Lifter, complete. One 40 H. P. Double Deck Boller. One 60 H. P. Upright Boller. One to H. P. Locomotive Boller.

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No. 75 Murray Street, New York, SOLICIT CONSIGNMENTS OF HARDWARE, CUTLERY, &c.

FOR SALE OR TO RENT. New, light Factory; 70,000 floor feet; 275 H.

Shafting, piping, elevator, &c., all complete and nodern. Lowest insurance rates. Railroad siding and ample yard room. Immediate posses

P. Corliss Engine, giving power at minimum

A large quantity of General and Specia Machinery at low prices. SHARPE RIFLE COMPANY

## Bridgeport, Conn. For Sale.

MACHINES With Dies Complete, for making Axes, Picks, Mattocks and Hammers, with solid punched eyes. T. & CO.,

Box 25, Office of The Iron Age, 83 Reade St., New York.

For Sale.

4 Planers. 33 in. x 36 in. x 7% ft.; 38 in. x 26 in. x 10

1; 24 lin. x 24 in. x 6 ft.

Engine Lathes, 12 in. x 3% ft.; 18 in. x 10% ft.; 20 in. x 11

1; 22 in. x 10 ft.; 24 in. x 16 ft.; 20 in. x 6 ft. Rod feed.

Column Drills, 15 in., 30 in., Ferris & Miles; 45 in.,

diegs & Co.

Column Drills, 14 in., 20 in., 16 in. x 6 it., Rod feed. iellers & Co. Schlenker Boit Cutter, small Shaper, Planer Chuck Description and related er Centers, &c., scription and prices on application. A. G. BROOKS & WINEBRENER, 261 N. 3d St., Philadelphia.

For Sale, Cheap.

One Power Drop Press, suitable for Sheet Metal or Drop Forgings; will strike a light or heavy blow. Now running. Will trade for Drill Press. R. C. PURVIS,

Rear 407 Cherry Street. Philadelphia. Manufacturing Property for Sale.

The Real Estate of the late Foundry and Ma-chine Company of Taunton, Mass. Buildings con-sist of Foundry, Machine, Erecting and Black-mith Shops, and covering about 6,000 square (set of ground, For particulars apply to For particulars apply to

# THE GEORGE PLACE MACHINERY AGENCY, 121 Chambers St., New York.

For Sale. The Industrial Works of Shamokin, cwned and successfully carried on for a number of years by the late Wm. Brown, deceased, consisting of Foundry and Machine Shop, and a large stack of Patterns regarded as part of the property. Boiler Shop, Blacksmith Shop and Factory for the manufacture of heavy coal screens. Well located in the borough of Shamokin, Pa., with the best facilities for shipping by rail, and surrounded by a district Shop, Blacksmich, Shop, Blacksmich, Shop, Blacksmich, Shop, With the best facilities borough of Shamokin, Pa., with the best facilities for shipping by rail, ard surrounded by a district contributing all the work that a shop of that kind can possibly turn out. The works are now running, but in a very short time possession can be given. Easy terms of payment are offered to suit a purchaser of limited capital.

Offered for sale by

WM. McILVAIN & SONS,

Reading, Pa.

# For Sale.

The largest stock of New and Second-hand Engines, Boilers, and general Machinery in the West, Send for Catalogue. Hoisting Outfits for Coal Mining and other purposes a specialty, WARREN SPRINGER,

> 195 to 219 South Canal St., Chicago. For Sale.

ONE LARGE, SOLID, DOUBLE-ARMED BAND WHEEL, rs feet 4 inches diameter, 2 feet 6 inches face, bored for 6½ inch shafting. Will be sold chesp. AKRON RUBBEH WORKS,

## Akron, Ohio. For Sale.

50-Horse-Power Tubular Boiler, second hand, in first-class order. Also, a Lambertville 40 Horse-Power Engine used for six months, and one 40-Horse-Power Locomotive Boiler.

JOSEPH LUMLEY. 144 N. 3d St., Philadelphia, Pa.

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# Special Notices.

# For Sale.

# Palo Alto Rolling Mills.

Near Pottsville, Pa., ON THE MAIN LINE OF THE POTTSVILLE AND READING RAILROAD.

These mills are in good repair, and can be started in two days' time.

Rolls for T-Rails 12 to 70 lbs. per yard, and for street Rails 18 to 70 lbs. per yard.

Guide Mill Train for Merchant Iron 1/4 to 1 inch.

Rolls for Merchant Bar, round and square, up to

Minber of Puddling Furnaces in both milla, 9: Heating Furnaces, 9: all with boilers attached. Also Foundry, Machine Shop, Blacksmith Shops, Iron Heuse, Roll House, Carrenter and Pattern Shops, Stables, handsome Dwelling for Superintendent, 11 Tenu. ent Houses, a Brick Office, and ample grounds for Stock and cinder. For further particulars address

Messrs, LEE & McCAMANT, Extrs., Pottsville, Pa.

THOS. F.WRIGHT, 1804 Bace St., Philadelphia, Pa. HUGH W. ADAMS, 56 Pine St., New York. **Furnace Property** 

# For Sale.

Will be sold at a low price. The Charter, Rights and Real Estate of the Bloomsburg Iron Co., together with such portions of the stock of materials and other personal property as purchasers may require. The real estate consists of two blast furnaces favorably known as the Irondale Furnaces, in good condition, steam engine, water power of no to so horse-power, lands with extensive iron mines, storehouse, numerous dwelling houses, R. R. tracks and sidings several miles in length (connecting the furnaces with both Canal and Railroad), canal wharves with tracks and facilities for receiving and shipping large quantities of fright with economy and dispatch, either by canal or railroad.

This property is situated at Bloomsburg, Pa., within 30 miles of the Wyoming Coal field.

The furnaces have been in continuous and successful use for 37 years. The Company own in addition extensive and valuable ore mines in Snyder Co., Pa.

Co., Pa.
All the property is in good order and now in profitable use. For further information apply to CHAS. R. FAXTON, President, Bloomsburg, Pa.

# For Sale or Lease.

A Large Two-Story Brick Factory. A Large Two-Story Brick Factory, formerly Machine Works, at Pearl River, N. Y., on railroad depot, 25 miles from New York City. Railroad facili ies unexceptionable on the line of the New Jersey and New York Railroad. The property contaioz 4,000 square feet floor space, with one 85 H. P. Engine and Boiler, 700 ft. 2-luch line shafting and pulleys, main belts, steam heating and water pipes throughout the building. A splendid from for Ldry, 70 ft. by 00 ft. with one iron smelting cupola with Mackenzie blower, brass furnase, core oven, blacksmith shop, pattern vaults, annealing oven, etc. The property can be bought or leased on liberal terms. For further particulars, price, terms, etc., address further particulars, price, terms, etc., address further particulars, price, terms, etc., address further particulars blower, technique Co., N. Y.

For Sale.

# BOLT HEADERS.

One Burdick Header. One Improved Lewis, Oliver & Phillips style, Two Chapin Headers, Five National Headers. National Hot-Pressed Nut Machine

And complete outfits for Bolt and Nut manufacture. Apply

NATIONAL MACHINERY CO., Cleveland, Ohio.

Specialists in this line of machinery.

# For Sale.

4 Noiseless Vertical Engires, 8 x 8 Cylinder. New. 1 11 H. P. Vertical Tubular Boiler; east-iron base plate; all complete; in good order. Second Hand. F. B. BANNAN,
STEAM HEATING AND BRASS WORKING,

# FOR SALE.

Pottsville, Schuylkill Co., Pa.

orisontal Engine, 36 in. x 48 in.
orisontal E..gine, 24 in. x 60 in.
orisontal E..gine, 24 in. x 36 in.
Oritsontal Engine, 36 in. x 36 in.
orisontal Engine, 80 in. x 60 in.
orisontal Engine, 30 in. x 60 in.
ink-motion Engines, 30 in. x 30 in.
ink-motion Engines, 30 in. x 30 in. JOHN CARROLL, 264 and 266 Water Street.

PROMPT DELIVERY. One-12-inch cylinder, 36-inch stroke, at once. One—14-inch cylinder, 36-inch stroke, in two veeks. Apply to

weeks. THE GEORGE PLACE MACHINERY CO.

## tat Chambers and 103 Reade St., New York. For Sale.

Second-hand

# DROPS and LIFTERS.

BEECHER & PECK, Lock Box 122, New Haven, Conn

# For Sale.

Horizontal Fngines, 16 x 42 (Hewes & Phillips), with cut-off; 16 x 36 (Currier), with cut-off; 16 x 28 Upright Engine, with cut-off; 10 as A. P. Locomotive Boller; one 4-ton "Otis" Freight Elevator; one 50 H. P. Horizontal Tubular Boller. All the above guaranteed complete and in perfect order. For particulars address
For particulars address
Cortlandt St., N. Y.

# The Sherman Process Co.

9 Pemberton Square, Boston, Mass., laine Licenses to use the Process for the Manufacture of Iron and Steel

in he Bessemer Converter, Crucible, Siemen Martin, Puddling, Blast and Cupola Furnaces, The use of this Process improves the quality of the product, saves fuel and fabor, and does not require any change in furnace or manner of working. See page 19 of The Iron. Age of Oct. 25th, 2577.

# Trade Report.

### BRITISH IRON AND METAL MARKETS.

[Special Cable Dispatch to The Iron Age.] LONDON, WEDNESDAY, Oct. 18, 1882.

Scotch Pig.-The market is unsteady, and quotations must be regarded as nominal. We quote makers' brands as follows:

Langloan, alongside, Glasgow..... Coltness Gartsherrie Summerlee Carnbroe Glengarnock "Ardrossan....

We quote as follows:

No. 2 "
No. 3 "
No. 4 Forge. ping ports.

Blooms .- A moderate business is doing

| Work   | 8:                  |    |    |    |    |    |   |
|--------|---------------------|----|----|----|----|----|---|
|        |                     |    |    | d. |    |    |   |
| Staff. | Ord. Marked Bars    | 7  | EO | 00 | 8  | 0  | 0 |
|        | " Medium "          |    |    |    |    |    |   |
|        | " Common "          | 6  | IO | 00 | 7  | 0  | 0 |
| Hoops  | , 20 W. G. and over |    |    |    |    |    |   |
| 50     | Common Best         | 8  | 10 | 00 | 9  | 0  | C |
| 6.6    | Medium              | 7  | 10 | 00 | 7  | 15 | 0 |
| 40     | Common              | 7  | 0  | 00 | 7  | Ol | 0 |
| Sheets | 1, 20 W.G. & under. |    |    |    |    |    |   |
| 4.6    | Ordinary Best       | 10 | 0  | 00 | II | 10 | 0 |
| 16     | Common              |    |    |    |    |    |   |
| Welsh  | Bars                |    |    | 00 |    |    |   |
|        |                     |    |    |    |    |    |   |

The demand continues fair. Ordinary Sections are quoted £5 @ £5. 10/, f. o. b. shipping ports

Iron Rails.-Nominal. Welsh, £4, 17/6

Old Rails,-The offerings are moderate

Wrought is quoted, nominally, £3. 12,6 @ Ends, run of the mill, are quoted 65/ @ 67/6. Central, 1453/4 @ 1501/2.

Copper.—The market is dull and prices Best Selected is quoted £76 @ £77, and Chili Bars, £70. 10/@ £71.

Tin.—There is a moderate business doing, and prices are weak. Straits Tin, spot, is quoted: £105. @ £105. 10/, and futures,

£105. 10/@ £106. 5/ Tin Plates .- The market is steady with a fair business doing. We quote :

Spelter.-The market is quiet and prices

port, £17 @ £17. 2/6. Lead .- The market is quiet and prices

Freights.-Steam from Glasgow to New York, 11/; ditto from Liverpool to New York, 12/; Liverpool to Philadelphia, 13/.

# FINANCIAL.

Office of The Iron Age, Wednesday Evening, October 18, 1882.

speculative excitement, and partly to un- 30, 1882, \$134,512,779, and for the corres- ure to inform you that Mr. Hermann Funke, propitious weather. Nevertheless, in the local trade there is a good business in prog-Corliss Engines For Sale. propinious weather. Nevertheless, in the ress, as indicated by the closing hour exchanges in comparison with the corresponding date last year, there being a small in- ing 500,000,000 bushels and possibly reaching crease, and the same can be said of the chief 520,000,000. industrial centers in the Middle and Eastern States. Both South and West there is a falling off. This last phenomenon is readily ac- the following quotations: counted for by the backward movements of cotton, on declining prices in the one case, and to like influences arising from the indisposition to sell at the prevailing market rates, so generally evinced by grain growers and other producers of staple products in the Northwest. An index of the feeling among the granger classes is found in the official statistics of railway shipments from Chicago eastward for the week ending October 14, the total being 26,188 tons, against 46,662

> Respecting our local trade, the transportation lines eastward notice no perceptible difference in the amount of freight forwarded, but South and West there is some falling off, more particularly in dry goods. The common impression is that the aggregate for the season will be fully up to last vear's business.

tons for the corresponding week last year.

The monetary situation has steadily imroved since the beginning of the month, the banks not only having made good their previous deficiency of \$2,500,000 and upward. but now hold a reserve of nearly \$2,000,000

The interior movement of currency agains this point is gradually lessening, and there will soon be saturnatew from the East and West, as indicated by the course of don exchange, but remittances to the South for the moving of cotton are likely to continue. Money on call was generally loaned during the week at 6 @ 4 %. We quote 60 to 90 days' indorsed dry goods bills receivable 6 @ 61/2 %; four months' acceptances 61/2 @ 7, and good single names, four to six months, 61/2

The market for Sterling Exchange is dull. On Friday the rates for bankers' bills were advanced to 4.82 @ 4.861/2, but were reduced on the following day, with actual sales at 4.81 @ 4.81½, and 4.85½ @ 4.86, for 60-day and sight, at which they still remain.

The Stock Exchange during the week has glinton
Lighterage from Ardrossan to Glasgew is 2/@ designed to "shake out" weak holders, the Cleveland Pig.—The demand continues principal operators working persistently for a decline. Richmond and Danville, Denver figures. No. 3 G. M. B. is quoted 44/6, f. o. b. makers' wharves in Tees, less usual 2½ %. tack, and other properties weakened from were pressed for sale vigorously, also the ...47/ were pressed for sale vigorously, also the 45/ Villard stocks, and quite a number who had .43/6 been carrying small margins were squeezed Bessemer Pig.-The market continues out. On Monday, as a consequence, sevsteady, with a fair business doing. W. C. eral of the specialties declined to the Hematites, mixtures Nos. 1, 2 and 3, equal lowest prices reached during the season, parts, are quoted 56/@ 57/6, f. o. b. ship- the Gould and Villard Stocks showing the most weakness. On Tuesday there was a decided change for the better, the improveand prices are steady. We quote: Bessemer, ment ranging from 1/2 to 3 %, most notice 7" x 7" £4. 17/6 @ £5, f. o. b. shipping ably in the prominent speculative stocks, ports. Manufactured Iron.—Business contin- the Coal shares and Denver and Rio Grande ues good and prices steady. We quote at The President of the latter, in a public state ment, characterized the recent attacks as "stock jobbing tricks." To-day the market was feverish and irregular, and it was specially remarked that, notwithstanding an important decision of the Court of Appeals in the Story vs. Elevated Railroad case adverse to the defendants, there were no transactions in the stocks affected. The leading stocks to-day ranged as follows: Delaware, Lackawanna and Western, 1351/4 @ 13758; Denver, 53 @ 547/8: Steel Rails.—The market is not so strong. Louisville and Nashville, 551/2 @ 581/4; Nor thern Pacific, 453% @ 465%; ditto preferred, 93 1/4 @ 95 1/8; Oregon and Transcontinental, 87 @ 8814; Western Union Telegraph, 871/4 @ 883/8; Wabash, 331/2 @ 341/2; ditto preferred, 611/2 @ 631/8; Union Pacific, 1073/8 @ 1081/2; Texas and Pacific, 4056 @ 421/4; and sales small. We quote Old Tees, £3. 17/6 Lake Shore, 11134 @ 11234; Canada Southern, @ £4, and Old D. H's., £4 @ £4, 2/6, c. i. f. 66% @ 57%; Michigan Central, 99% @ 101; St. Paul and Omaha, 481/4 @ 491/8; Scrap. — The market remains without preferred, 106 1/2 @ 107 1/2; Kansas and Texas, change. The offerings are moderate. Heavy 33 4/4 @ 34 1/4; Missouri Pacific, 104 1/8 @ 10534; Jersoy Central, 723/2 @ 74; Milwau-£3. 15/, c. i. f. New York. Bessemer Crop kee and St. Paul, 109/2 @ 1103/4; Illinois

A dispatch from Washington to-day said that another call for 5 per cent. bonds, to the amount of \$20,000,000, would be issued immediately. The call will mature in January.

The Director of the Mint reports that the amounted to \$1,543,710,432. One year previous it had amounted to \$1,469,342,603. twelvementh of \$74,500,000 in round num-

the notes of national banks. The total values of the exports of domestic breadstuffs from the United States during the month of September, 1882, were \$24,506,067; for September, 1881, they were

are far behind their orders. The tone of the
Per gross.....

Bureau, Washington, respecting the wheat

Government bonds were firm thoughout,

| Ì | Bid.                                    | Asked. |
|---|---|--------|
| ĺ | U. S. 5's, '81, continued at 356 1001/2 | 100    |
| ì | U. S. 4% 3 129. registered              | 1131/  |
| l | U. S. 41/2 8 1891 COUDOB 1123/6         | 113/4  |
| Į | U. S. 4's 1907 registered               | 11039  |
|   | U. S. 4's 1907 coupon 119%              | 11936  |
|   | U. S. 3 per cents                       | 101    |
|   | U. S. Currency 68 1895                  | -      |
|   | U. S. Currency 6s 1896                  | -      |
|   | U. S. Currency 68 1897 131              | -      |
|   | U. S. Currency 34 1898                  | 400.00 |
|   | U. S. Currency 68 1899 133              | Name . |
|   |   |        |

State bonds are dull and weak. To-day Tennessees declined 1 % for the 6's, old, to 48 1/2, and 1 % for ditto mixed to 48. Louisiana consols advanced 1/8 to 691/2.

The importations of specie and bullion at this port during the week ending October 13 were \$434.827, consisting of \$330,424 in gold, and \$104,403 in silver, as against a total of \$1,522,783 for the week ending Oct. 15 last year. The importations since the 1st of January and since the 1st of August compare as follows with the movement during

| old                        | e correspor | iding per | ious mer le          | SF1. 5                                 |
|----------------------------|-------------|-----------|----------------------|--|
| Total \$3,789,065 \$48,727 | old         |           | 1882.<br>\$1,672,840 | ************************************** |
|                            | Total       |           | \$3.789.065          | \$48,727,7                             |

\$18, 339, 52 1 Total ..... \$1,683,836 The weekly statement from the Clearing House was very favorable, showing a gain in surplus reserve of \$1,383,575, and the banks now hold \$1,855,400 in excess of the

legal requirements. The following is an analysis of the bank totals of this week compared with that of price list and discount sheet for their "Cov

| 9 | Loans                             |             | \$311,999,400                         | Dec. |  |
|---|-----------------------------------|-------------|---------------------------------------|------|--|
| ı | Legal t'd'rs                      | 50 403 600  | 52,206,500                            |      | 1,802,900                                    |
| , | Fot reserve                       | 72.017, 100 | 73.548,200                            | Inc. | 1.531,000                                    |
|   | Deposits, Reserve re-             | 236,181,500 | 286,771,200                           | Dec. | 584,700                                      |
|   | quired<br>Surplus<br>'irculation, |             | 71,692,800<br>1,855,400<br>18,745,700 | Inc. | 147,425<br>1,3 <sup>3</sup> 3,575<br>162,800 |
| ч |                                   | *******     | -                                     |      |  |

MINING STOCKS.

|   | The closing quotations for Mining        | Stock |
|---|--|-------|
|   | were as follows:                         | Aske  |
| 3 | American Flag                            |       |
|   | Ame.                                     | 17    |
| 1 | Alice 2 60                               | 2.10  |
|   | Alta Mont                                | 30    |
| è | Bechtel                                  | 20    |
| 9 | Belle Is.e                               | 44    |
| ı | Bulwer 96                                | 4.00  |
| ì | Rull Dom                                 | 7     |
| L | Bonanza Chief 2<br>Big Pittsburgh 2      |       |
|   | Big Pittsburgh                           | 40    |
| , | Bradshaw                                 | 38    |
|   | Cale B. H                                | 1.85  |
| 1 | California 20                            | 1.05  |
| ) | Climax<br>Consolidated Imperial          | 10    |
| ı | Consolidated Imperial 5                  | 8     |
|   | Consolidated Virginia 69                 | 72    |
|   | Cent. Ariz                               | 63    |
| ١ | Dunkin                                   | 40    |
|   | Decatur 50<br>Eureka C                   |       |
|   | Eureka C                                 | 13    |
|   | Findley                                  | 15    |
|   | F. De Smet 4.00<br>Gr. Prize 50          | 6.00  |
| • | Goodshaw                                 |       |
|   | Great Eastern 2                          | 3     |
| , | Green Mountain 68                        |       |
|   | Gold Stripe. 12 Horn Silver. 81/2        | 85    |
|   | Hibernia.                                | 5     |
|   | Independence r.rs                        | 1.25  |
| 1 | Iron Silver 2.25 Lacrosse Leadville Con. | 2.30  |
|   | Lacrosse                                 | 25    |
|   | Little Pitts                             | 70    |
|   | L. Chief                                 | 52    |
|   | Moose                                    | 17    |
|   | Nor. Belle 11                            | ****  |
|   | N Belle isle                             | 29    |
|   | Prussian M. & M                          | 17    |
|   | Rappahan'k                               |       |
|   | Robinson Con                             | 1.40  |
|   | R. Sun 6                                 | ****  |
|   | S. Nevada 4-75                           |       |
|   | Standard                                 | 4-75  |
|   | Sutro                                    | 32    |
|   | Spri'g Va!                               | 3.00  |
|   | Spri'g Va!<br>Stormont                   | 55    |
|   | S. Hite, new                             | 37    |
|   | South Pacific                            | 15    |
|   | St. L. 2 and 3                           | 10    |
|   | St. L. 2 and 3<br>Tioga                  | 18    |
|   | Tuscarora                                | 8     |
| 1 | Union Con                                |       |
| 1 | Vizina                                   | 1.45  |
| ı | Vizina                                   | ****  |
| 1 | Hall And                                 | 3.00  |
| 1 |  |       |

# GENERAL HARDWARE.

Business has improved considerably during the week, and both manufacturers and jobbers feel encouraged. A session of the Western Hardware Association was com-

the trade miss the active Western inquiry that prevailed during the recent strike in are steady. We quote: Ordinary, at shipping This represents an accumulation within the that section. Since our last writing the Atlantic States Nail Manufacturers' Associbers. Of this accumulation, \$28,500,000, or ation held a meeting in this city, at which easy. English Common Pig is quoted £14 @ a little more than one-third, was in gold coin existing prices were reaffirmed. We conand bullion; some \$28,000,000 was in silver tinue to quote 10d. to 60d. \$3.65 per keg, net, coin and bullion, and the remainder was in in car-load lots and upward, small parcels being advanced to cents on the above-named price. Foreign Hardware is in fair request, and in some lines, particularly fine

> Jr., son of our senior partner, has this day been admitted as a member of our firm.

The Iowa Farming Tool Company, Fort crop, foreshadows a product slightly exceed- Madison, Iowa, have issued a fully illustrated catalogue of the specialties of their manufacture, in which they show, in addi- Per gross ... tion to their large assortment of Steel Forks, and in some instances advanced, closing at Hoes, Scythe Snaths, Cradles, &c., a good Per gross .... line of Wheel Barrows, Saw Bucks, Transplanters, Feed Cutters, Ox Yokes and kin dred goods.

The Nimick & Britton Manufacturing Company, of Pittsburgh, Pa., have purchased the factory and premises of the Jaco bus & Nimick Mfg. Co., and have added to the large assortment of Locks, Knobs, Bronze goods, &c., made by the old concern, a large variety of new patterns which they are now prepared to offer to the trade. It is the intention of the new organization to present 12 a full line of fine bronze goods and builders' hardware that will compare favorably with any similar line on the market. Graham & Haines, No. 113 Chambers street, will represent them in this city.

We have received the following communi-NEW YORK, October 16, 1832.

To the Editor of The Iron Age.—DEAR SIR: Having been notified by various parties during the past month that they had been informed that we had decided to discontinue the manufacture of "Bridgewater Horse Nails," we beg, through your columns, to disclaim any such intention on our part. The report emanates from a salesman form- meeting during the week, at which price

erly in our employ, who since leaving us has been engaged by other parties in the same business. Correspondly his motives we trust will be flux understood by the trade without further explanation from us.

Respectfully yours,
BRIDGEWATER IRON Co., NAHUM STETSON, JR., Agent, 73 Pearl Street, New York.

Sargent & Co., New York and New Haven, Conn., have issued the following revised ered" and other Harness Snaps. The changes are in all cases reductions from former

Sargent & Co.'s Patent Covered Spring Harness Snaps.—Tinned.

Nos ...... 110½ 111 112 114 115 116 117 118 Size of eye... ½ ½ ½ 1 1½ 1½ 1½ 2 In Per gross....\$7,50 8.00 9.00 9.50 15.50 17.50 19 50 21.00

Round Eye, Tinned.

Patent Cattle Ties.—For Rope, with Sargent's Patent Covered Spring Snap. No. 11, Tinned, for Rope, 56 In. or smaller,

per doz. \$2.50

No. 13, Galvanized, for Rope, 54 In. or smaller, per doz. 2.50

For Leather. No. 12, Tinned, per doz..... No. 14, Galvanized, per doz.... Strap Eyes. No. 2, Tinned, per doz..... No. 4, Gaivanized, per doz.... Patent Hitching Post Rods, with Sargent's Patent Covered Spring Snap.

Covered Spring Snap.

12 Inches, Tinned ..... No. 37, Patent Breast Chains.—Tinned.—Heavy Tapering Chain, Extra Heavy Snaps, with Sargent's Patent Covered Spring Snaps.

and Hook on the Other With Sargent's Patent Covered Spring Snap.
No. 27, Tinned, 30 inches long, per dozen. ... \$6 00 With Sargent's Patent Snap.
No. 7, Tinned. 28 inches long, per dosen...

Nos. 1 to 4. half gross in a box; other numbers, uarter gross.

Nos... 11 12 13 14 14½ 15
Size of Eye, in... ½ ½ 15:16 1 1 heavy. 1½
Fer gross... \$8.00 8.25 9.00 10.00 21.50 12.75
Nos... 16 17 18 130 130
Nos... 16 19 134 3 70 round. Fround.
Per gross... \$15.00 18.00 30.00 14.00 11.00
Nos. 11 to 14, half gross in a box; other numbers, quarter gross.

Galvanized.

Sargent & Co.'s German Harness Snaps.

2014 2014 21 36 34 34 83.50 3.75 3.90 3034 3036 31 36 36 36 \$3.50 3.75 3.90 Size of Eye, in.. 4034 4034 41 36 36 36 \$3.50 3.75 3.90 In the general markets there is a quiet tone, hardly up to expectations for the season, a part of which is due to the absence of speculative excitement, and partly to up.

| September 30, 1882, they were \$69,656,538, and for the similar period in 1887, \$65,471, | Toned | September 30, 1882, they were \$69,656,538, and for the similar period in 1887, \$65,471, | September 30, 1882, they were \$69,656,538, and for the similar period in 1887, \$65,471, | September 30, 1882, they were \$69,656,538, and for the similar period in 1887, \$65,471, | September 30, 1882, they were \$69,656,538, and for the similar period in 1887, \$65,471, | September 30, 1882, they were \$69,656,538, and for the similar period in 1887, \$65,471, | September 30, 1882, they were \$69,656,538, and for the similar period in 1887, \$65,471, | September 30, 1882, they were \$69,656,538, and for the similar period in 1887, \$65,471, | September 30, 1882, they were \$69,656,538, and for the similar period in 1887, \$65,471, | September 30, 1882, they were \$69,656,538, and for the similar period in 1887, \$65,471, | September 30, 1882, they were \$69,656,538, and for the similar period in 1887, \$65,471, | September 30, 1882, they were \$69,656,538, and for the similar period in 1887, \$65,471, | September 30, 1882, they were \$69,656,538, and for the similar period in 1887, \$65,471, | September 30, 1882, they were \$69,656,538, and for the similar period in 1887, \$65,471, | September 30, 1882, they were \$69,656,538, and for the similar period in 1887, \$65,471, | September 30, 1882, they were \$69,656,538, and for the similar period in 1887, \$65,471, | September 30, 1882, they were \$69,656,5471, | Septem Nos. 50% 90% 91 58
Size of Eye, in. 54 36 36 36
Per gross. \$4.00 4.05 4.00 5.20
Nos. 53
Size of Eye, in. 1, short 1, long 1% 1% 15 15
Per gross. \$4.40 6.50 10.00 11.60 12.75 

> Page in Oct. pamphlet.
>
> 9. Sargent's Patent Covered Spring Snaps, reduced list. suced list.
>
> Sargent's Patent Covered Spring Snaps, rehuced list
> Sargent's Patent Cattle Ties, for Rope, rehuced list
> Sargent's Patent Cattle Ties, for Leather, reduced list.

REDUCED PRICES FOR HARNESS SNAPS.

duced list.
Strap Eyes

11. Sargent's Patent Hitching Yost Rods.

Rein Chain.

Breast Improved
Halter Chain.

H. rse Hitching Chain.

Bull Snaps. German Harness Snaps, reduced Subject to our usual extra discounts

New York, October, 1883, GENTLEMEN: Notice reduced prices for our Harness Snaps. These discounts apply to the new list as published in our pamphlet of this month, a copy of which has been mailed to your address. We shall be pleased to receive your orders, and guarantee the goods to be first-class in every respect. Respectfull, yours, Sargent & Co.,

spectfuli, yours, SARGENT & Co., New Haven, Conn., and New York. The manufacturers of Cut Tacks held a were advanced as under. The new discounts ing 285 tons. The price of Straits on Octowent into effect to-day. These discounts are ber 14, 1882, was 24%, against 21½6 October 14, 1881; 19¼6 in 1880; 24¼6 in 1879; and 135% in 1878. One of the lending E. I.

and Tinned.

Sweedes Iron Tacks, all kinds, Bright, Bined and
Tinned (except Brush and Looking Glass).

Jo
Basket Nails.

20
Chair Nails.

20 Olgar Box Nails.
Frunk and Clout Nails.
Frunk and Clout Nails.
Frunk and Clout Nails.
Frunk and Rails.
Common and Patent Brads.
Brush Tacks.
Copper Tacks.
Leathered Carpet Tacks.
Looking Glass Tacks. For Tinned Goods on Hardware List, for which prices are not given, add 6 cents per pound.

E. Bissell & Co. announce, in advertisements among Special Notices, that they will well at auction at their salesrooms, Nos. 83 Chambers and 65 Reade streets, on Thursday, October 26, a large assortment of Hardware and Stamped Tinware, and on Thursday, November 2, a large and peremtory sale of Table Cutlery, Carvers, &c.

### TRON.

American Pig .- The tone of the market is quiet, but prices are remarkably firm. As have previously remarked, the bulk of the business transpiring is on old orders, which seem to be sufficient to prevent any accumulation on furnace banks. We quote: Foundry No. 1 X, \$26 @ \$27; Foundry No. 2 X, \$24 @ \$25; Gray Forge, \$22.

Scotch Pig.—There is a positive scarcity of Scotch Iron in this market, and the bulk of the lots affoat is sold. Sales during the week aggregate about 1000 tons, various brands, at our quotations. We quote: Eglinton, \$23.50 @ \$24; Carnbroe and Glengarnock, \$25.50 @ \$26; Coltness, \$28; Langloan, \$26.75 @ \$27, and Gartsherrie, \$26.

Rails .- Nothing in the way of new business in Rails, Steel or Iron, is reported. We quote Steel, at mill, \$45 @ \$46. It is so long since any transaction in Iron Rails has been announced, that we are unable to state their market value.

Old Rails,-Business in Old Rails is very quiet. We quote Tees, \$27.50 @ \$28, and D. Н., \$30 @ \$31.

Wrought Serap .- We hear of a sale of 200 tons extra-quality No. 1 Wrought, ex ship, at \$29. Prime Selected from yard is quoted \$29 @ \$30, and ex-ship lots, \$28 @ \$28.50.

A meeting of the stockholders of the Iron and Metal Exchange Company, Limited, was held at their rooms, No. 69 Wall street, on the 17th inst., at which it was concluded to increase the number of directors from o to 13. The names of the 13 directors are given below.

JAMES B. BRINSMADE. BENJAMIN G. CLARKE. FREDERICK L. LEHMANN. EDWIN F. BEDELL. WILLIAM H. WALLACE. EDWIN S. WHEELE. CHESTER GRISWOLD. THOMAS J. POPE. WILLIAM ALLEN SMITH. B. F. JUDSON. JOHN C. COOK. T. D. HAZARD.

GEORGE A. EVANS.

We have received the following: NEW YORK IRON AND METAL EXCHANGE, 234 Pearl street, cor. Burling Slip. On and after October 16, 1882, there will be but one daily call, beginning at 1 p. m.
EDWARD J. SHRIVER, Secretary.

# METALS.

Copper.-Our market during the week rule. Some of the companies, however, have as much as they can do under regular contracts, and are not troubled with accumulation. According to guantity and brand. London has continued tending upward, and came yesterday to £77 for Best Selected and £71. 10/ for Chili Bars. We receive from there per cable to-day the ensuing message: "Market dull and prices weak. Best Selected, £76 @ £77; Chili Bars, £70. 10/ @ £71." We find in the Russian paper, the Golos, of Moscow, September 30, an announcement that the Government has relinquished the idea of raising the duty on Ingot Copper and which took effect last Monday. Government has relinquished the idea of Chinton, to avoid the advanced rates of toil, raising the duty on Ingot Copper and manufactures, as it considers the Russian Copper industry sufficiently protected as it is. Manufacturers have made no change in prices. They quote: Bottoms, 31¢ at Amboy. On account of difficulties in transportation, the New York agencies are badly behind in their deliveries. It is rent is. Manufacturers have made no change in prices. They quote: Bottoms, 31¢ (32¢; Braziers, 30¢ (36¢; Circles, 33¢ (36¢; Sheathing, 28¢, and Bolt Copper, 30¢; Segment Sheets, 33¢; Firebox ditto,

Tin.-Shipments from the Straits settlements to the United States October October 15 were 500 tons, and to England 500 tons. These large shipments cause a drooping tendency on both sides the Atlantic, Straits cannot, therefore, be quoted to-day any higher than 23%¢, while Lamb and Flag is worth, nominally, 24%¢ @ 24%¢. amount of business now doing, though a little delayed on account of the exceptionally warm weather, is in sufficient volume to take up all that the operators can send along the line and to tide, and there is no doubt are cabled thence to the following effect:

"A moderate business doing and prices weak. Straits Tin, spot, £105 @ £105. 10/; futures, £105. 10/ @ £105. 5/." Singapore simultaneously wires \$32 P picul. According to the semi-monthly circular of Messrs. William I. Russell & Co., 12 Cliff greet, New York, of October 14, the visible supply in this country, on the date named, was 4426 tons, against 4151 September 30, 1882, outside importers and speculators hold-

been discounted before they were fully re-alized, and a reaction has followed. This may be partly accounted for by the varying fortunes of the struggle that is going on between the bulls and bears, but there is one substantial element in the situation which may be telling on the market, and which any way must not be left out of account in at tempting to forecast the immediate future of our market. Judging by the experience of our market. Judging by the experience of the last few years we may expect that there will be available during the ensuing three months for export from the Straits to the United States and this country a supply of about 4000 tons. Of late years we have been used to look to the United States to take the larger sheer of this supply. But this take the larger share of this supply. But this year we think it likely that after this month buyers for your market may not be inclined to buy freely in the Straits of an article for which they have the London market to draw from after the 1st of January, and if the bulk of these 4000 tons has to come to our market, this will furnish a counteracting force to the other influences which are at work to make our market buoyant. These work to make our market buoyant. Inese remarks apply also to the 3000 tons or so which are likely to be available for export from Australia. If your markets will not take their usual share of these 7000 tons, our market must take more than usual, and the heavy shipments that will be made to London will tend to put a drag on the movement for a rise. This movement is based—and rightly enough, we think—on the belief that the consumption of Tin is outstripping the production, and this fact will no way be affected by the diversion to London of an unusual share of the customary sapply, but the bur-den of supply will be felt in this market un-til the time comes when it will be relieved by a larger demand than usual from your market. These considerations incline us to believe that the value is not likely to be believe that the value is not likely to be much higher here for the present, es-pecially as we appear to be coming on a period, however, short of dear money." Tin Plates.—There has been a fair jobbing trade, mostly in Charcoals and Ternes, and the market closes firm at the following figures, ordinary brands, large lines, ? box: Charcoal Bright, \$6.25 @ \$6.50; ditto Ternes, Charcoal Bright, \$6.25 (@ \$6.50; ditto Ternes, \$5.25 (@ \$5.50; Coke Tin. \$5.20 (@ \$5.35, and ditto Ternes, \$5.20. Liverpool was very firm yesterday; Coke Tin at 16,6 (@ 17/, and Charcoal at 19/ (@ 20/. We receive the ensuing to-day from London: "Market steady, with a fair business doing."

Lead .- The market has become decidedly weaker after sales in a small way during the week of 200 tons at \$5.10, which is the asking price at the close, although there was a rumor that it has been offered as low as  $5\phi$ , in quantities to suit purchasers. Of Select Lead for corroding purposses 50 tons sold at \$5.10. From Europe we are cabled to-day as under: "Market quiet and prices easy. English Common Pig, £14 @ £14.5/." There is no change in manufactures. We quote: Pipe, 71/2¢; Sheet, 8¢; Tin-lined Pipe, 15¢; and Block, 45¢, all less 10 % to the trade.

Spelter and Zinc.—The market has relapsed into dullness, so that with the light lapsed into duliness, so that with the ignudealings that transpire Common Domestic may be had at \$5.30 @ \$5.35, and Silesian at 53%. We at the same time quote Bertha Refined,  $8\psi$ , and Bergen Port,  $9\frac{1}{2}\psi$ . Today's London telegram reads as follows: day's London telegram reads as follows:
"Market quiet and prices steady. Ordinary at shipping port, £17 @ £17. 2/6."
Sheet Zinc—Is steady at 67 @ 7¢.

Antimony.-There is no change We Cookson, 13¢ @ 131/2¢, and Hallett, 10%¢, @ 11¼¢.

# COAL.

In Anthracite Coal a fair business is reported, mostly in the domestic sizes, for which there is a demand, especially for the East and points inward liable to be closed to navigation after another morth. As to prices, there is more or less cutting. In

\*\*Seville\*\*

\*\*Marselles\*\*

Mf. ircz, pkge 1
Carbines, cse. 7
Edw., pkge. 1

\*\*Barcelona\*\*

\*\*Barc Copper.—Our market during the week under review has remained altogether featureless, sales not exceeding 150,000 b Lake at 18 %, while Baltimore and Arizona and Arizona.

> ported that higher prices are in prospect, to Cloc correspond with the coming advance in tolls Bell. on the Pennsylvania Railroad, to take effect

ovember 1.

Eastern freights are quite active. Rates are quoted \$1.15 to Boston, 85¢ to Provi-

The Pottsville Miner's Journal says: "The amount of business now doing, though a lit-tle delayed on account of the exceptionally

period last year. The quantity of Bitumin-ous Coal sent to market for the week amounted to 97,132 tons, against 97,716 tons in corresponding week last year. The total in corresponding week last year. The total amount of Bituminous mined for the year s 3,264,173 tons, against 3,712,460 tons for the corresponding period last year—a decrease of 448,287 tons.

### EXPORTS.

Of Hardware, Iron. Machinery, Metals

&c., from the Port of New York, for the
Boker Hermann & Co.
Hdw., cutlery, guns,
&c., bygs., 50

Baldwin Bros. & Co.
Machinery, pg8,, 2 Week ending Oct. 17, 1889: Dutch West Indies. | Dutch East Indies. | Che Chessney Bros.

Quan Val.

8.557.880 \$54.393

Graces.

Jogs. 30 3.354

Jogs. 1307 81,010

Jogs. 130 103

8. 477 9.304

8. 135.280 13.482

G. 8. 223 3.507

G. 8. 23 3.507

G. 8. 23 3.507

G. 8. 23 3.507

G. 9. 104

Machinery, cs. 1

Davis J. C.

Machinery, cs. 2

Machinery, cs. 3

Case, 1

C Quan. Val.
Hdw., pkgs... 27
Pins., cs... 1
Pilm., gls.557.880 \$54.393
Pilm., cgls... 1
Pilm., gls.557.880 \$54.393
Pilm., gals... 4940
Nails, kegs... 32
Hambury
Pilm., gals.532.842 40,048
Sew. ma., cs... 1635 35,045
Clocks, pgr... 9
Mach'y, pkgs... 37
Mach'y, pkgs... 37
Mach'y, pkgs... 39
Pilm., gals.135.880 13,488
Sew. ma., cs... 233 3,507
Mach'y, pkgs... 37
Pilm., gals.135.880 13,488
Sew. ma., cs... 233 3,507
Hdw., pgs... 72
Sew. ma., cs... 233 3,507
Ag. implumits 2
Promen. Quan. Val. 53 1,025 1 100 Bremen. Ptlm., gals 567,022 35,439 Nai Cutlery, cse. r 25 Mf. iron, pgs. 47 1.203 Cop Hdw., psgs... 42 892 Fire Rotterdam. Ptlm., gals.,567,724 38.500 Pumps, pkgs... 10 279 Hdw., pkgs... 30 312 Clocks, cs... 5 585 Ag. imp., cs... 3 20 Scales pkgs... 17 220 Sew. ma., cse. 1 25 
 Safe
 1
 95

 Ag,imp.,pkgs
 4s
 1,288

 Valves, cs
 9
 794

 Iron cars
 188
 8t8

 Boilers
 3
 5,550

 Nails, pgs
 6
 84
 Danish West Indies. Brazil. Ptlm., gals... 749 75 Ptlm., gals 247,500 26,52

Ptlm., gals... 749

Antwerp.

Ptm., gals... 747,210 57,000
Nails, cs... 5 205
Naph., gals... 149,092 10.493
Hdw... cs... 7 250
Cop. g'ds, cse... 1 59

Ptlm., gals 247,500
Mf. iron, pkgs... 15
Cutlery, cs... 12
Sew. ms., cs... 56
Mach'y, pkgs... 14
Iron, pkgs... 100
Cutlery, cse... 1 Elsinors. dibraltar. Ptim., gais. 101,400 8,000 Ptlm., gals.. 140,580 15,704

Harre.

Malaga.

Measseo

okestack

Sew. ma., cs.. Mach'y, pkgs, Ptim., gais..3:

Pistols, cse ... 53 Shot, bags ... 53 Lead, bxs ... 12 Mf. iron, pkgs 381 Sew. ma., cs. 273

Irou pipe, pcs 798
Wire g ds, pcs 2
Tacks, cse... 1
Solder, cs... 5
Nails, cs... 1

Japan.

lombia.

430 880

4.341

332

Copenhagen. Porto Rico. Mf. iron, pgs. 63 Hdw., pkgs. . . ao Ag imp., pkge 1 Yel met., bxs. 7 Nails, kegs. . 2 Hdw., cs..... 12 581 Clocks, bxs... 15 834 Christiana. Ag. imp., pkge 1 62 Hans, megs... 1
Iron safe... 1
Met. g'ds, pgs 2
Pulm, gals... 5036
Mach'y, pkge. 1
Pumps, pkgs. 2
Cutlery.cs... 1
Saws, cs... 14 Danzig. Ptlm., gls. 140,868 10,000 Newcastle.

Mf. iron, pkgs 2 100 Liverpool. Hdw., cs..... 10
Ag. imp., pgs. 4
Mach'y. pkgs. 7
Cop. g'ds, cse. 1
Mf. iron, pkgs 2
Clocks, pkgs. 9 Ptlm., gals. 131,403 11,655 Hdw. pgs. 185
Pumps, pkgs. 180
Bells, cse. 17
Per. caps. 700,000
Clocks, cs. 21
Cartridges, cs. 14
Cutl.ry, cs. 46
Revolvers, cs. 8
Rails, kegs. 189
Engine 180
Engine 180

iron, pgs... ulm., gais 338,150 Hull. Hdw., pkgs... 150 Ag. imp, pkgs 5 Mr. irou, pgs. 48 Mach'y, pkge. 1 London.

Ag, imp., pgs. 7 Vach'y, pgs. 24 Sew. ma., cse. 462 Clocks, cs. . . 21 Pthn., gais 635,969 Hdw., pkgs. . 20 Mf. iron, pkge 3 883 50 Glasgow.

Sew. ma., cs. 211 3,485 Hdw. cs. . . 16 308 Clocks, pgs. 2 126 Mf. irou, pgs. 74 651 Mach'y, pkgs. 2 742 Iron rolls, cs. 2 850 Cardiff.

Mf. iron, pkge 1 5 Sandwich Islands Limerick. Locks, ca.... 36 1,450 Ptm., gals. 172,300 12,061 Marseilles. Ptim., gals. 347,600 37,800

As to Ptlm., gals.. sa8,og2 16,166 Ptlm., gals. . 24,440 2,851 Argentine Republic. Ptm., gals..30,000 3,225 Ag.imp., pkgs1172 21.862 Hdw., pks.... 896 12,777 Mf. iron, pkgs 12 82

Sew. ma., pgs 14 Clocks, cs... 2 Mt iron, pgs... 32 Ag. imp.,pkgs . 59 1,946 59 Ltsbon.

Ag. imp.,pkgs . 8 455 Cop. g'ds., cs. . 1 30 Cutlery, cs. . . 3 101 Tacks, cs. . . . 9 46 Oporte. 45 Clocks. pkgs.. 33 527 British North Amer

United States of Cutean Colonies Stmpdwre, cse i 40
Fdw., pkgs 16 436
Iron safe 1 43
Mach'y, pkgs 88 1,070
Mf. iron, pkgs 52 701
Ptim, gals, 24,670 3,104
Iron, pkgs 10 225
Sew. ma., cse. 1 50
Clocks, cs. 24 254
Bell 1 275 Sew. ma., cs. 100 2.47 Mach'y, pkgs. 209 15, 30 Ptlm., gals. 195 32 Clocks, pkgs. 89 13, Mf. iron, pgs. 381 4,01 Hdw., pgs. 128 3.78 Canada. Guns, cse.... 1 185 Met, shing ,cs. 12 52

Hdw., pgs. ... Revolvers, cs. Ag. imp., pkgs Arms, cs. ... Shot, cse. ... Cun caps, cs. Zinc, cks. ... Liron, pkgs. ... Copper, pkgs. ... Mach'y, cs. ... Still. bxs. British Guiana. Ptm., gals....5000 550 Mf. iron, pkgs 3 110

Of Stardscare, Iron, Steel and Metals into the Port of New York, for the Week ending Hardware. Atlas S. S. Co.

Lillienberg N.

Bars. 2444
Mason John W. & Co.
Wire rope, coils,
Moors J. B & Co.
Fig. tons, roo
Bundles, 157
McComb J. T.
Lag bdls., 8 Cares, 120 Carks, 2 Pig. tons, 100
Bundles, 157
McComb J. T.
Cot, ties, bdls., 84x0
Montgomery & Co.
Wire, cks., 4
Ogden & Wallace,
Sheets, 224
Bu 1fles, 168
Parsons B. & Co.
Pig. tons, 100
Pierson & Co.
Sheet, bdls., 207
Smith G. V.
Wire plates, cs., 7
The Cincinnati Stamping
Co. Machinery, pg8., 2 Cases, 3 essney Bros. Machinery, ca

IMPORTS

Co. Castings, 1 Wiebusch & Hilger Hdw. Co. Hdw. and cutlery,

Vaso Strip Iron, barr,
2406
Wirc, cks., 18
Cotted rods, bdls, 775
Strip iron, bars, 2428
But dles, 159
Iron ties, bdls., 2200
Scrap, kg., 203,290
Sheets, cks., 332
Wire rods, bdls., 1433
Sheet, pkgs., 1511

Steel.

Baldwin Bros. & Co.

Cases, 16 Blake Bros. & Co.

Bundles, 160 Belcher H. W. Files, cks., 6 Files, cases, 2

Blooms, 1226 Dolge A. Wire, cks., s Duval H. R.

Plates, 39 Bars, 20 Bundles, 30

Bundles, 30
Cases, 2
Iron & Coal Co.
Rails, 2164
Mayer, Strouse & Co.
Strips, cks., 39
Peters & fres.
Steelware, cs., 6
VanDorp August
Steelward, cs., 5
Waguer W. F.
Cases, 37
Bars, 83
Bundles, 191
Plates, 21

Plates, ar Order,
Bands, x33
Plates, cus., 3
Bundles, 3xx

Cases, 24 Rails, tons, 271

Metale

Cases, 2 Coltins H. E. Blooms, 1

Hdw. Co.
Hdw. and cuttle
pkgs., 16
Williams H. E.
Ore, cks., 156
Williams of J. & Co.
Pig. tons, 400
Order.
Pig. tons, 1857
Pig. lot
Spiegel, tons, 1800
Spiegel, kg., 218,000
Old rails, tons, 100
Ore, kg., 300,000
Rails, 4535
Hoop fron, bdls., 83
Wrought, cks., 7
Flange rails, 8221
Coiled wire, bdls., 809
Gas strip iron, barv.
2406
Wire, cks., 18 Fairbanks & Co. Field Alfred & Co. Casks, 12

Casks, 12 Cases, 4 Packages, 6 Great Western Disp. Co. Guns. Cs., 24 Machinery, cs., 48 Howard Bros. & Co. Cases. 4 poenheimer & Mau Heppen rer,
Machinery, cs., 7
Jackson W. H. & Co,
Cask, x
Box, z
Casos, o
Jennings A. G.
Machinery, cs., 3

26,585 Machinery, cs., 3 Kursheedt Mfg. Co.
847 Lathorn, Alexander & Co.
966 Machinery, cs., 7
Machinery, cs., 7
Merchants Despatch Co. Guns, cs., 7
Mount Jos. T.
Casks, 3
Moore's Sons J. F.
Arms, cs., 9
Graef Cutlery Co.

Cutlery, cs., Hartley & Grah Guns, cs., 11
Hodgkins & Haigh
Guns, cs., 2
Putney D.
Gun barrels, cs., 1
Plummer J. J.
Machinery, pkgs., 39
Pim, Forwood & Co.
Crowbars, bdls., 32
Bundles, 85
Cases. 22

Cases, 23 1,935

Buckets, Cs., 2
Cuttery, Cs., 12
Schoverling, Daly & Gales,
Mdse, Cs., 9
Arms, Cs., 17
Equiros H. C.
Guns, Cs., 4
Staten Island Chain Oo.
Machinery, pkgs., 2
Struller, Lau & Co.
Cases, 3 Cases, 3 e Someret Mfg. Co. Machinery, cs., 3 Cases, 3
The Somerset Mfg. Co
Machinery, Cs., 2
Toser H. E. Co.
Ironware. Cs. \*
Vom Cleff & Co.
Mdsc., Cs., 1
Ironware, Cs., 19
Witte, John G. & Bro.
Needles, Cs., 2
Cutlery, Cs., 4
Order. Cutlery, cs., 4 Order, Cases, 13 Casks, 15 Rivets, cs., 10 Ironware, cs., 15

tron. Baring Bros. & Co.
Pig, tons, 100
Bars, 6497
Strip Irons, bdls., 1466
Nall rods, bdls., 5062
Wire rods, colls, 524
Crocker Bros.
Pig, tons, 100
Spiegel, tons, 254
Duval H. R.
Sheet, bdls., 336
Band, bdls., 1351
Bars, bdls., 736
Elliott, Sons & Co.
Ore, lot
Glib Thomas.

Bars, 2630 Wire, coils, 250 Lyles & Gilson Tubes, pkgs., 5

Artimony......

IMPORTS. For the week ended October 14: Since Jan. 1.... \$389,118,656 \$347,586,033 \$400,204,741 Included in the imports were leading articles of merchandise valued as follows:

Quantity, Value.

trade movements during the past week :

Bronzes Chains and anchors Liocks Copper Cutlery Guns
Hardware
Iron, hocp, tons
Iron, pyg tons
Iron, sheet, tons Iron, sheet, tons
Iron ore, tons
Iron ore, tons
Iron ecton ties
Iron, other, tons
Machinery,
Metal goods
Nickel
Old metal
Plated ware
Pins
Saddlery
steel .. 28.248 40 fin. slabs, 7.594 lbs... 105 Wire 185 Zinc. . 684,807 . 2,863 . 55,304

The quantities of various articles, as reported by the custom house, compares with

previous dates as follows: For the 41 V Hardware, pkgs. fron, R. R. bars..

For the week ended October 14 Total.... Previously reported..... \$25,700 44,238,645 \$44,264,345 8,974,308 6,174,027 12,981,704 Total since January 1, 1882..... 12,901,704 10,832,398 23.543,386 40.761,074 66,532,920 43,364,593 43,309,445 60,860,371

EXPORTS EXCLUSIVE OF SPECIA For the week ending October 14:

Since Jan 1.... \$326,620,251 \$304,930,063 \$268,261,335

OLD METALS, PAPER STOCK, &C. The purchasing prices offered by dealers

are as follows :

The prices current (prices paid by local

dealers) for Rags, &c., are as follows: Seconds... Soft Woolens ... Mixed Rags ... Gunny Bagging ... Jute Butts. 15/2 C. (3) 25/4 C Jute Butta..... Kentucky Bagging... Book Stock.... Newspapers Waste Paper and Scraps Kentucky Bale Rope....

## PHILADELPHIA.

Office of The Iron Age, 23c South Fourth st., } PHILADELPHIA, Oct. 17, 1882, }

Pig Iron.-There has been so little change that last week's report of the market might fairly be repeated again to-day. Good brands are scarce and firm, although it has been hinted that pressure has been used to realize on secondary qualities, and that sales have been made at lower prices. Careful investi-gation leads to the conclusion that while one or two transactions of this character may have taken place, the general condition of the market is unchanged. It is quite likely, however, that holders would find it difficult to Ansbacher A. B. Quicksilver, bottles. Quicksilver, bottles,
Brascheleer E. de
Brassware, cs., 2
Bruce & Cook
Tin pits., bxs., 433
Curtis R. J.
Tin pits., bxs., 95
Covi Geo. G.
Quicksilver, bottles,
100 place an article which is not fully established on the market, and, in fact, it would be difficult to place anything at market prices, unless the parties applied to were really in need of stock. The leading features of need of stock. The leading features of the market are: First, that nearly all good brands are under contract; second, that consumers are unwilling to take any but standard brands; third, that Downing R. F. & Co.
Alloy, cks., 10
Durand J.
Cartridges, cs., 5
Dickerson, Van Dusen &
Co.
Tin plts., bxs., 880
Erich Bros.
Brassware, cs., 2 consumers understand that there is very little use in trying to obtain concessions on such; and, fourth, that holders of other de-Tin plts., bxs., 880
Erich Bros.
Brassware, cs., 2
Johnson L. & Co.
Old metal, pgs., 34
Maddock & Bros.
Tin plts., bxs., 1708
McCoy & Sanders,
Nickel, cs., 0
Meyer G. A. & E.
Ov. zinc, cbls., 100
Ox. zinc, cv., 100
Phelps, Dodge & Co.
Tin plts. bxs., 6816
Pim. Forwood & Co.
Copper, bdls., 4
Order,
Tin plts, bxs., 38, 123
Lead, cks., 18
Spelter, plts., 5602
Tin, ingots, 500
Tin, slabs., 3215
Black plts, bxs., 95
Quicksilver, bottless, 29 scriptions find it very difficult to place them, unless at irregular and comparatively low This general statement seems to figures. cover the market, so far as we can find, and as regards the future, there is nothing more definite than there was two or three weeks ago. From present appearances, there is not likely to be much change of any kind. Demand and supply run very even, and as new orders have come in rather more freely of late, there is a reasonable prospect that con-sumption will be maintained at semething near its present proportions. Notwithstand-ing the favorable outlook, consumers are exceedingly cautious, taking only what they require from month to month, and holding themselves ready for any change looking to-ward an easier market. It is somewhat sig-nificant, however, that while no one expects FOREIGN TRADE MOVEMENTS.

The following is a summary of foreign wide range of prices, No. 1 Foundry having the past week: any serious charge, it seems to be looked for sold at from \$24 to \$27, No. 2 at \$22.50@ \$23.50, and Gray Forge at \$20.50@ \$22, all furnace deliveries. Such brands as are of-1880. 1881. 1882. 1883. 1883. 1883. 1883. 1883. 1883. 1883. 1884. 1883. 1884. 1884. 1885. transactions have been at about \$25 @ \$25.50 at furnace for No. 1, and \$21 for standard Mill Irons. Nothing of special account doing in foreign Irons, as only No. 3 Eglinton is offered for spot delivery, sales of

> Bessemer Iron.-There has been no busnessether 1701.—There has been no business and no offers to buy, so far as we can learn. Nominal quotations are \$24 @ \$24.50, but buyers still maintain an attitude of absolute indifference, and it has been impossible to obtain offers at anything 82 likely to lead to business.

which are reported at \$21.

Muck Bars .- The demand is fair, but with free offerings prices are slightly easier.
Sales have been made at about \$42 at mills
for good Bars, but business has been done both at higher and lower rates, according to quantity, delivery and quality.

Blooms.—The market, is dull, and sales in quantity are not easily made without some shading of pies. Quotations are shout as follows: Charcoal Blooms, \$60; Scrap Blooms, \$50 @ \$52.50, and Northern Ore Blooms, \$47.50 @ \$50.

Bar Iron,-It is difficult to report this 8,480 branch of business correctly, as transactions

depend on circumstances, and circumstance depend on circumstances, and circumstances are almost as varied as the number of mills. Some are full of work, and, therefore, in a comparatively independent position, and the fact that they are so has a tendency to strengthen their views as to prices. Others are short of orders, and they take an opposite view, and between the two there is a considerable disparity in quotations. Large orders have been placed with mills outside the city at less than 2.5¢, delivered, but local manufacturers are unwilling

but consumers look for lower prices.

Plate and Tank Iron.—The remarks under the heading of "Bar Iron" apply with equal force to the Plate mills. Business is dull, prices weak and irregular, buyers scarce and timid. Prices for Tank Iron are supposed to be about 3¢: some quote higher, while it is quite probable that a good-sized order could be placed at less than 3¢. Manufacturers consider that it is no use lowering quotations until there is a demand, so that prices are almost nominal at last week's rates. Small lots have made up the week's business. Small lots have made up the week's business, the largest sale reported being one for 100 tons Tank. We quote as follows: Tank Iron, 3\phi @ 3.25\phi; Shell Iron, 3.8\phi @ 4\phi; Flange, 5\phi, and Fire-box, 6\phi.

Structural Iron.—The demand is fair, but nothing larger than 600 tons has been absolutely closed, so far as known. There is a considerable amount of work in sight, however, and there is reason to expect that the demand will at least enable manufacturers to maintain their present position. Prices are steady and unchanged as follows: 3¢ for Angles, 3.85¢ @ 4¢ for Tees, and 4¢ for

Sheet Iron.-The demand is fair, and promises to be all that manufacturers desire, if not more. The productive capacity in this branch has not increased as in some others. so that the mills are kept running to fullest extent without overcrowding the market. At present it is difficult to make deliveries as promptly as could be desired, but it will probably be only temporary. Prices are

| Common Sheets, No. 2855                  | ŝŧ |
|--|----|
| Common Sheets, No. 20 and 27             | ij |
| Common Sheets, No. 22 to 25              |    |
| Common Sheets, No. 16 to 2142            | ¢  |
| Best Refined 1/4 % advance on the above. |    |
| Best Bloom Sheets, No. 26 to 28          |    |
| Best Bloom Sheets, No. 22 to 25          |    |
| Best Bioom Sheets. No. 16 to 21          |    |
| Common Red Plates, 3-16 to 16            | d  |
| Blue Annealed 3-16 to 16                 | ¢  |
| Best Bloom, Galvanized, discount30       | %  |
| Conond quality discount                  | al |

Wrought Iron Pipe .- There is no positive change to note. An average amount of business has been transacted during the business has been transacted during the week, but new orders are coming forward somewhat slowly. Prices are inclined to be easier, and it is not improbable that lower figures may be quoted shortly; in the meantime the following continue to be quoted: Gas and Steam Pipes, 57½ %, and Boiler Tubes, 45 @ 47½ % off list price.

Steel Rails.-There is not much doing, and the tendency is toward lower prices. Small lots command \$45 @ \$46, but an offer of \$44 would not be likely to be refused if of \$4.4 would not be likely to be refused if the order was of any size and delivery not required this side of December. A large amount of work has been entered, but there seems to be room for more, hence the willingness to make concessions when heavy orders are likely to be had.

Railway Fastenings,-The demand is rather slow, and sales in quantity hard to close. Spikes are about 2.9¢; Fish Plates, 2.5¢; Bolts and Nuts, 3.5¢ @ 3.75¢.

Steel Crop Ends .- There have been no sales, so far as known, but there are sellers at \$24 for prompt shipment, New York or

Old Rails,-Choice qualities seem to have the preference, at a difference of about \$1 Selection over ordinary lots. Sales have been \$40; ade at \$28.50 for American, with more offered at same price, and \$27.50 for fore at which they are still offered. Do Heads are offered for shipment at \$29.50.

Scrap Iron.-The demand is firm, but \$28, and Cast, \$20 @ \$20.50.

Nails.—The demand keeps up very fairly, and with stocks reduced to the lowest point own for years, prices are held verady. Sales have been chiefly at \$3. net, although on large lots it is possible there may be a slight shading of quotations.

# PITTSBURGH.

Office of The Iron Age, 77 Fourth Avenue, t

The general Iron trade remains substantially the same as noted in our last report While business is not particularly active, and the expectations of the more sanguine have not been realized, it is healthy and increasing, and our manufacturers are not only pretty well supplied with orders for the present, but they are confident of a steady trade during the remainder of the year. The report from the South and West, upon which sections Pittsburgh manufacturers depend mainly for a market for their products, con-tinue encouraging, and it is believed that there will be a demand from there sufficient there will be a demand from there sufficient to absorb the production not only of the mills the rebut throughout the West from now until the 1st of January next. In addition to the general trade, which is expected to be large, the railroads, both old and new, it is thought, will be large buyers, and the outhlought, will be large buyers, and the outleok is more encouraging than it was just after the mills started up.

Norway 1701, revoked, or rates; Custer 1701, the throughout the West from now until the railroads of the general trade, which is expected to be large, the railroads, both old and new, it is thought, will be large buyers, and the outleok is more encouraging than it was just after the mills started up.

BALTIMORE.

R. C. Hoffman & Co., Iron and Commission Merchants, report the Fig Iron market as doubted in the sections. There is a good call for carry out their threat, but the sections. Spikes, 3½¢ rates.

Pig Iron.—The demand for Pig Iron general trade, which is expected to be a follows, under date of Oct. 16, 1882.

Pig Iron.—The demand for Pig Iron general trade of Oct. 16, 1882.

The interval played on similar occasions. It is and 3/66 that the coal miners will ocarry out their threat, but the sections. Spikes, 3½¢ rates.

Pig Iron.—The demand for Pig Iron general trade, which is expected to be a follows, under date of Oct. 16, 1882.

The interval played on similar occasions. It is and 3/66 that the coal miners will ocarry out their threat, but the sections. There is a good call for threat, but the sections. There is a good call for the all likely that the coal miners will ocarry out their threat, but the sections. There is a good call for the all likely that the coal miners will ocarry out their threat, but the sections. There is a good call for the all likely that the coal miners will ocarry out their threat, but the sections. There is a good call for the all likely that the coal miners will ocarry out their threat, but the sections. There is a good call for the all likely that the coal miners w

Pig Iron.—As compared with the time covered by our last report, there has been no important change in the general position of the market; business continues dull, the demand is still of a hand-to-mouth character, while prices remain unchanged, although weak. It is very evident that consumers are apprehensive of lower prices, and this accounts for their unwillingness to carry any more stock than is absolutely necessary; they are anxious to keep themselves in position to take advantage of a decline should one occur. Mill owners have all been buying mills outside the city at less than 2.5%, delivered, but local manufacturers are unwilling to go below 2.6%, although it is not improbable that they would at least make an endeavor to meet competition if the order was a very desirable one. With these conditions presenting themselves, buyers are timid, and reduce their orders to the smallest limits possible, so that the week closes without any improvement or without feature of any kind other than presented a week ago. The feeling is one of weakness and uncertainty, however, and there is little doubt that if 2.5% would induce a steady demand, that figure would induce a steady demand, that figure would induce a steady demand, that figure would be adopted. As matters stand, buyers are very much unsettled in their ideas as to values, and until confidence is restored there will be but little chance for an active demand. Skelp Iron is quoted at about 2.7%, but consumers look for lower prices.

Plate and Tank Iron.—The remarks under the heading of "Bar Iron" apply with equal force to the Plate mills. Business is ers will always give the preference to an ers will always give the preference to an Iron they are familiar with. We can report sales of Mill at \$22.50 @ \$23, 4 mos., for standard brands of Neutral; \$23, 4 mos., for Red-short Cinder Mixture; and \$24 for Red-short Extra. Sales of White and Mottled at \$21 @ \$21.50, 4 mos. Foundry grades—\$23.50 @ \$24 for No. 2, and \$25 @ \$25 50 for No. 1. Charcoal.—Sales of Eastern Cold-bleat at \$27 4 mos. Southern Cold-\$25 50 for No. 1. Charcoal.—Sales of Eastern Cold-blast at \$37, 4 mos.; Southern Cold-blast at \$29, 4 mos.; and No. 1 Hanging Rock (warm-blast) at \$31, 4 mos. Nothing doing in Bessemer; no sales reported for several weeks, in the absence of which we quote, nominally, at \$25.50 @ \$26.50.

Muck Bar.—There appears to be an increasing demand, and the inference is that some of our mill owners are of the opinion that they can buy Muck cheaper than they make it. We can report sales of some 2000 tons at \$41 @ \$42, cash.

Manufactured Iron.—The mills, so far as we'can learn, are all busy, and while but few of them are crowded, orders are coming forward more freely, and the outlook is far brighter than it was a week ago. As stated in our last report, large buyers are holding back, in apprehension of lower prices, but once they become satisfied that there will be no decline, a largely increased demand will follow.

Nails -There is a continued good de-Nails—There is a continued good demand, factories are all busy and prices fully maintained, viz., \$3.40, 60 days, 2 ?? cent. off for cash, with usual abatement of 10¢? keg on carload lots and upward. The regular monthly meeting of the Western Nail Association took place last Wednesday, but there was no change made in prices, nor is it likely that there will be during the requestion of this year. remainder of this year.

remainder of this year.

Wrought Iron Pipe.—There is a continued good demand, but, with the largely increased production, prices are easier. We quote discounts on Gas and Steam Pipe at 60 @ 62½%, and on Boiler Tubes, 47½ @ 50%; Oil-well Casing, unchanged at 70% of foot, net; ditto Tubing, 20% of foot, net. The improvement in oil wells no doubt stimulates development, and if so, an increased demand. velopment, and, if so, an increased demand for all kinds of oil-well supplies will follow.

tons of Western Tees at equal to \$30, delivered in Pittsburgh, also a small lot of Double Heads at equal to \$33. We quote at \$29 @ \$30 for Tees and \$32.50 @ \$33.50 for Double Heads. Sales of Old Steel Rails at \$23.50 @

Steel Rails-Continue dull. Orders for

ear-by delivery are scarce and being solicit-d. In the absence of sales we omit quota-

with slightly larger offerings; buyers discriminate very closely as regards choice.

No. 1 commands \$29 @ \$30; Medium, \$27 @ Prices remain unchanged at \$1.25 \$\tilde{v}\$ ton.

Manufactured Iron.—As stated in our previous report, Merchant Iron continues in good demand, and quotations remain firm as follows: Bar Iron, 2.70¢ @ 2.90¢; Angle, 4¢; T, 4½¢; Beams and Channels, 4½¢ @ 4½¢; Hoop at 4¢; Sheet, Plate and Tank, 10 to 14 gauge, 4¢; 15 to 17 ditto, 4.80¢; 25 to 26 ditto, 5¢, and 27 ditto, 4.80¢; 25 to 26 ditto, 5¢, and 27 ditto, 5c. 20¢. Patent Cold-rolled Shafting, dis. 20 %; Norway Iron, Original Bars, 5¢ rates; Norway Iron, re-rolled, 6¢ rates; Ulster Iron, 4½¢ rates; Low Moor Iron, 8¢ rates; Nutsand Washers, 7½¢ off list; Wrought Boat Spikes, 3½¢ rates.

The streams still hold up and factory business is good.

Pig Iron.—The market continues fair at

Pig 1701.—The market continues that at the last quotations. There are no accumulations of stocks. The market is rather bare of the better grades and prices rule quite strong. We quote: No. 1 Foundry, \$24 @ \$25; No. 2 Foundry, \$22 @ \$23; Gray Forge, \$20 @ \$21; White and \$23; Gray Forge, \$20 @ \$21; White and Mottled, \$19 @ \$20; Car-wheel Metal, \$33 @ \$37.

Ores.—We quote: 50 % Brown Hematite, R ton, \$2 @ \$2.75; Red Fossil, \$2 @ \$2.25, lelivered at furnace.

Miscellaneous Articles.—Old Rails are quiet at \$25, there being a fair demand for shipment. Scraps are dull and without change. We quote Wrought at \$23; Cast Scrap, \$13 @ \$15; Old Wheels, \$28 @ \$29.

Nails.—We quote at \$3.60 @ \$3.65, car-Charles are very light. Small lots

Strange Articles.—Old Rails are are surface and surface and surface are surface and surface are surface are very light. Small lots

Nails.—We quote at \$3.60 @ \$3.65, car-load lots. Stocks are very light. Small lots go at 15¢ higher than above quotations.

Manufactured Iron.—Bar has a good and strong market at \$2.55 for large bills; Railroad Spikes, \$3.25; Track Bolts, \$4; Fish Plate, \$3.

Coal.—We quote: Fancy Lump, \$3.50 common, \$3; Run of Mine, \$1.50, at mills. Coke.-We quote : Furnace Coke, \$3 at int of consumption; Foundry, 10¢ @ 12¢ Ladend Of

Steel and Iron Rails .- Steel Bars, \$43; Small T's, \$50 @ \$53.

# CINCINNATI.

OCTOBER 16 .- Pig Iron .- The market during the past week exhibited no new features. Prices have remained as before. The demand has been only for present needs and from foundries, the mills having been shut down on account of some misinterpretation down on account of some misinterpretation of contract with hands. The matter for a year has been adjusted, and the mills are all at work to-day. Quotation for the past week is justified by sales: Best Hanging Rock Charcoal Foundry, \$28; good, \$27.50; Tennessee and \$32.50 @ \$33.50 for Double leads. Sales of Old Steel Rails at \$23.50 @ \$25. Sales of Old Steel Rails at \$23.50 @ \$23.50; No. 2, \$1 less; American Scotch, \$23.0 @ \$24; No. 2, \$1 less; Silver Gray Soft-paries. Railway Track Supplies.—No change a prices. Railway Spikes, 3¢, 30 days; oners. No. 1, \$22.50; No. 2, \$1 less; Silver Gray Soft-paries. in prices. Railway Spikes, 3¢, 30 days; eners, No. 1, \$22.50; No. 2, \$21.50; No. 3, Splice Bars 2½¢; Track Bolts, 3¾¢ with square, and 3.90¢ @ 4¢ with hexagon nuts. make quotatio

Steel.—A good degree of activity is reported. The mills are pretty well supplied with orders, and prices are steady at card rates.

Scrap.—There is a fair business at unchanged prices. Wrought Scrap, \$28 @ \$29
Pret ton for mixed lots, and \$30 @ \$31 for Selected Railroad; Old Car Axles, \$38 @ \$40; Wrought Turnings, \$20 @ \$21; Crop Ends, \$27 Prosestor; Old Car Wheels very dull; Cast Borings, \$15 @ \$16.

Coke.—Business is still restricted forms.

| No. 1 Hanging Rock, Charenst \$27.00 @ 27 50            |
|---|
| No. 1 Southern, Charcoal 24.00 @ 24.5.                  |
| No. 1 Hanging Rock, Stonecoal and                       |
| CORA 23 00 . 23 51                                      |
| No. 1 Southern, Stonecoar and Come 13 51 (5 4 cm        |
| No. 2 Southern, Stone coar and core 23 57 (2 4 co No. 2 |
| "American Scotch" 22 0. C. 22 00                        |
| Open silver Grav  |
| Close Silver Grav 20.50 21.60                           |
| MILL IRONS.   |
| No. 1 Charcoal 22,00 @ 23.50                            |
| No. 1 Stonecoal and Coke, Neutral 21 00 16 21 5         |
| No. 2 Stonecoal and Coke, Neutral. 2000 : 20.50         |
| No. 1, Stonecoal and Coke, Cold-short. 20 00 @ 21 00    |
| No. 2, Stonecoal and Coke, Cold-shert. 19 50 ( 20,00    |
| White and Mottled, Cold-short and                       |
| Neutral 19 co 2 19 50                                   |
| CAR WHEEL IBONS.  |
| Hanging Rock, Cold-blast 30.00 @ 32.00                  |
| Hanging Rock, W. B 26,00 (2) 27,00                      |
| Alabama and Georgia, Warm and                           |
| Cold-blast 30.00 @ 32.00                                |

| are continued :                                  |
|--|
| No. 1 Scotch Pig Iron 26,00 @ 28 50              |
| No. 1 Anthracite Pig Iron 26.00 @ 28.00          |
| No. 2 " 84.00 62 26.00                           |
| No. 3 " @ #3.50                                  |
| No. 1 Virginia Coke Pig Iron 23 00 60 24.50      |
| NO. 2 " 31.50 (% 82.06)                          |
| No. 3 " " 20. 50 @ 28 00                         |
| White and Mottled 19.50 64 81.00                 |
| Virginia Charcoal C. B. Wheel Iron 32.00 @ 35.00 |
| Old Rails 27.00 (7                               |
| Wrought Scrap, No. 1 22.40 @ 24.00               |
| Cast. Scrap, No. 1 19.00 @ 21.00                 |
| Richmond Refined Bar Iron 2.7-10 @ 2 8.10        |
| Horse Shoes (Tredegar) 4.50 @                    |
| Mule "   |
| Virginia Coke White and Mottled 18.00 @ 21.00    |
| virginia cone winte and action 15.06 @ 21.06     |
|  |

| our meet it one dans           |       |
|--------------------------------|-------|
| MOT BLAST CHARGOAL.            |       |
| Missouri \$24.50 @             | 25.5  |
| Ohio 28.00 @                   | 29.00 |
| Southern. s5.co @              | 26.00 |
| COAL AND COKE.                 |       |
| Ohio 24.00 @                   | 27.00 |
| Southern 24.00 @               | 25.00 |
| MILL IRONS.                    |       |
| Red-short 93.00 @              |       |
| Neutmu 21.00 (2                | 92.00 |
| CAR WHEEL AND MALLMARLS INCHE. |       |
| Elenouri #4,00 (%              | 98,00 |
| kouthern se oo da              | 25.00 |

# Our English Letter.

Review of the British Iron, Steel, Metal and Hardware Trades.

(From our Regular Correspondent.)

LONDON, ENG., Oct. 2, 1882.

THE OUTLOOK nsumers are becoming rather uneasy Many consumers are becoming rather uneasy at what they see going on all around them, and appear to have arrived at the conclusion that they have waited long enough and had better place their orders without further LOUISILLE.

W. B. BLEXAPA & Co., Iron and Steel whether the conclusion of the protect of the malls are presty well amplied with orders, and prices are steady at card as rates.

Scrap.—There is a fair business at use changed prices. Wrought Scrap, \$8.9 (\$9.5) and \$1.5 (\$1.5)

ale wants only. We quote: Lake Superior Charcoal Wheel Iron (all Indiana Charcoal, Nos. 1 and 2, \$26,50; No. 3, \$3.5 in and Nos. 4, 5 and 6, \$25,50; Carlotter, \$25,50; Briar Hill, \$27; Silvery Soft, \$24 or \$26. Crance, No. 1, \$28, \$1, No. 2, \$27; Himmord, \$26, Charcoal, Nos. 2 and Anastican Scotch, \$24, or \$26. Crance, No. 1, \$28, \$1, No. 2, \$27; Himmord, \$26, Charcoal, No. 1, \$26, \$1, No. 2, \$27; Himmord, \$26, Charcoal, No. 1, \$26, \$20, and Anastican Scotch, \$24, or \$26. Crancel C. B Blooms. 4 aco 6 570c charcoal Charc

ready stated, however, I think a sturening of prices is quite a possible matter, and it will not surprise me to find a gradual hardening of values all round between this and the end of the year. Should your market respond to the tentative rise here, and come forward as a new buyer of our products, the alteration would be hurried and emphasized, while if the contrary hold good, it will not be so largely influenced by speculation or by the extravagant expectations which always seem to be feed to be a six transpires that a contrary of the feed of the same buying freely." A Glasgow quite a little boom was indulged in last week, quotations for warrant being run up over 1/6 feed ton, or from 50/3 on Monday to 51/10 on Friday. Shipments are good and the local consumption is well maintained. Quotations for makers' brands are in a very curious state forward as a new buve; of our products, the

makers' brands are in a very curious state of "hash." In some quarters Coltness No. 1 is declared to be entirely out of the market is declared to be entirely out of the market and is not priced at all, whereas other venders quote the brand at 70%. Gartsherrie, Langloan, &c., are proportionately irregular, in all cases, owing to the almost total exhaustion of the No. 1. iron. At the same time, it should be borne in mind, there are 526,000 tons in Connal's Glasgow stores, so that it may be inferred that little or none of this appropriate stock consists of choice brands or enormous stock consists of choice brands, or other than common iron. Stocks have un-doubtedly been greatly lowered lately, but as the restriction agreement came to an end on Saturday (September 30), it may be assumed that the production will be speedily assumed that the production will be speedily enlarged. Up to now, however, the prospect of having an enlarged make does not appear to have depressed the markets, either in Scotland or Cleveland, whence we may inf hat the output is not likely to be seriously side. to for some time ahead. I put the questicathe other day to a leading Cleveland ironmaster, and he assured me that nothing defininite was known as to the extent of the additional make. His opinion seemed to be that the number of furnaces running on ordinary iron would not be augmented to any formidable extent. At Middlesboro' prices is fairly bright at the time of writing, although it cannot be said that the sky is by any means unclouded. There is, without question, a very large turnover at the majority of the iron and steel works, coupled with which there is a strong disposition manifested to complete negotiations covering supplies for the remainder of 1882. Many consumers are becoming rather unears alone during the month, with a heavy reduction in the reserve stocks. On the West Coast hematites have been rather quiet and irregular, partly owing to the prospect of additional furnaces being put on these eres in Cleveland and in Scotland, and in part owing to the incidence of other causes. Nevertheless, there is some fair buying and

is strong in all particulars and may possibly undergo a further rise, unless it should be date last year. Shipments to date have been 470,126 tons, or 44,709 tons over those for the same period of 1882, last week's total being above that of the corresponding week. Importations from Middlesboro' into Scotland being above that or the same section have been 167,749 tons or 49,964 tons below the same figures for the same section of 1681. In Connal's Glasgow stores there are at present 626,221 tons (a decrease last week of 886 tons) as against the same average, and 627,186 tons at the same seem to afford convincing proof of the high value of M. Giers' soaking pit process for heating ingots. 590,176 tons a year ago, and 627,186 tons at Christmas last—a proof that the consump-tion and shipments have been much larger this than last year. Writing from Glasgow, on September 30, James Watson & Co. said: "There has been considerable animation in the Scotch iron market this week, with a very large business done in warrants at advanced es. The demand for makers' iron is good and quotations have all been advanced. Middle stro' market is reported strong, the shipments from the Tees continuing very heavy. The warrant market here opened on Monday last at 50/3, steadily advancing to 50/9½, cash. On the following day the advance contined to 51/1, closing quieter at 50/10½ % ton. On Wednesday a large business was transacted between 50/9 and 51/2½ % ton. Yesterday the price further improved to 51/7, closing at the best. Today the market was excited with a large business done from 51/8 % 52/, receding in the afternoon to 51/6½, and closing with buyers at 51/10, cash, sellers near. The shipments last week were 12,933 tons, as compared with 12,841 tons for the corresponding week of last year." We quote:

No. 1. No. 3.

appear to be stiffening again, owing to the renewed difficulty of finding 'amunerative return cargoes on your side. Fig iron, by ordinary steamer Glasgow to New York, is quoted 12/6, and from East Coast, West Coast and Welsh ports, 12/6 @ 15/15 quoted.

From Liverpool to New York, 10/ @ 12/, and to Philadelphia, 12/@ 13/ are the current rates. From Glasgow, by salling vessels, the freight quotations are: Montreal, 12/6; Philadelphia, 12/6; Portland, 13/: Providence, 12/6; Rio, 20/, and San Francisco, 20/ % ton. To-day's reports speak of a shipments last week were 12,933 tons, as compared with 12,841 tons for the corresponding week of last year." We quote:

No. 1. No. 3.

SOME CURRENT PRICES Middlesbro' market is reported strong, the appear to be stiffening again, owing to the No. 3. No. v.

| G. M. B., a 41   | BSCOW       | - 53/  | 51/6  |
|------------------|-------------|--------|-------|
| Clyde, at ' 18   | 60W         |        | 53/   |
| Coltness.        |             | . 70/  | 564   |
| Langioar. "      |             |        | 36/6  |
| Gartsherr "      |             | 66/    | 56/   |
| Summer. '        |             | . 65/6 | 55/   |
| Calder,          |             | 646    | 34/6  |
| Carabros "       |             | . 59/  | 53 6  |
|                  | · \rdrossab |        | 53/   |
| Eglinton.        | 0.0         | - 54/3 | 52 3  |
| Daimelling con.  |             | 54/3   | \$2/3 |
| Shotts, at Leit! |             | 66/    | 56 6  |
| Kinnell, at Bo'r | ners        | . 90/  | 50/   |
| Carron, at thra  | ncemouth    | 53'    | 52/   |
|                  | V           |        |       |

## MIDDLESUORO' PIG IRON

has been botter and higher during the week, the stronger tone of the Glasgow market having sympathetically affected the North of England. For the United States cargoes of England. For the United States cargoes are leaving West Hartlepool per Hawarden and other vessels, about 14,000 tons having been contracted for shipment within the next four months. No. 3 has been held at 44/6 @ 44/9, and G. M. B., f. o. b. at makers' wharves in the Tees, are quoted, net cash,

| No. |   | Foundr, | 7 | <br>48 9 | White         | 43/ |
|-----|---|---------|---|----------|---------------|-----|
| **  | ä | 0.0     |   | 44 0     | Refined metal |     |
| 0.6 | 4 |         |   |          |               |     |
| 4.6 | 4 | Foru .  |   |          |               | - " |

Good Continental inquiries are about, especi ally for Germany, Holland and France. Of spiegeleisen sales are being made to your buyers at £5 @ £5. 2/6 % ton. The rail mills and Bessemer pits are fully engaged. Several other concerns are likely to begin the manufacture of Bessemer steel before long, notably the North Eastern Steel Com pany, which will work the basic process.

SHEFFIELD EXPORTS TO THE UNITED STATES. The Iromonger furnishes the following table of exports from Shefield to the United States during a series of years. The figures are said to have been supplied by Dr. Webster, the United States Consul at Shef-

| Articles.                             | 1874-6      | 1876-7.      | 1877-8 | 1         | 1879-80.       |
|---------------------------------------|-------------|--------------|--------|-----------|----------------|
| Steel in sheets, bars, rods, wire, &c | \$1.314,247 | \$950.369    |        | \$871.612 | \$1,868,197    |
| Castatoal awles                       | 23,808      | 10,017       |        |           | 6,696          |
| Bessemer-steel rails                  | 9.033       | 1,050        |        |           | 050            |
| Bessemer-steel tires                  | 4,362       | 13.809       |        |           | 202<br>opologo |
| Iron                                  | 3,603       | 50.163       |        |           | 20 228         |
|                                       | C. 774      | 4.105        |        |           | 2.006          |
| Machinery                             | 8,510       | 15,061       |        |           | 200            |
| ('utlery                              | 658,885     | 706.671      |        |           | 1,161,173      |
| FILES                                 | 142,165     | 80,873       |        |           | 73, 3-8        |
| THE WEST                              | 795         | 250          |        |           | 480            |
| rage and other tools                  | 30,514      | 22,:25       |        |           | 40,227         |
| Garden room                           | 2,236       | 908,1        |        |           | 4.44           |
| Self Tales                            | 9.5         | 231          |        |           | 9000           |
| SIGNLES AND STREET HOURS              | 3,681       | 2,377        |        |           | 4. 47          |
| эпеер япеаги                          | 43,400      | 43,7.4       |        |           | 60,4/2         |
| rated goods                           | 740         | pog pog      |        |           |                |
| Britanna metal and nickel             | 71          |              |        |           |                |
| TOVE STORES ALL THIS IS               | 050         | ************ |        |           | 73             |
| Shooting tackle, breech-loading im-   | 15-349      | 9,882        | -      |           |                |
|                                       | 16,450      | 8,108        |        | 34000     | 221734         |
| Measures, tapes, rules, &c            | 5,986       |              | 6,042  | 9.067     | 28,531         |
| ourgical instrumenta                  | 754         |              | 587    | 1.408     | 140            |
| CHIDPMIN TION                         | 20,817      |              | 2      | £4923     | 31,640         |

saw plates ready for teething to the United States, and the same firm have on hand orders for more than 100 tons of reaper steel for your market.

# HEMATITE PIGS

are reported a trille steadier, awing to sec-ond-hand parcels which had been depressing the market having been bought up. Sales are heard of as I was 55, but the average quotations of the week may be set down at 56 @ 57', with present askings at about 56 6 for mixed numbers. Makers' brands

| &Pe :           |        |        |        |
|-----------------|--------|--------|--------|
| Hemathes.       | No. 1. | No. 2. | No. 3. |
| Cirator         | . 51/  | 607    | 50.7   |
| Lonsdate        |        | 57/6   | 50 6   |
| Workington      | 18     | 57/    | 50/0   |
| West Cumberland |        |        |        |
| Lowther         | . 547  | 57/    | 56/3   |
| Moss Bay        |        |        |        |
| Distington      | 48/    | 57/    | 96/2   |
| Harrington      | -8 ;   | 57.3   | 56/3   |
| Solway          | 4.8    | 57/    | 56/3   |

There are 6.4 West Coast furnaces at work out of 82, built, the present weekly make being estimated at 32,000 tons and the reserve undergo a further rise, unless it should be seen that the production is libely to be much augmented. There is a heavy business doing in warrants by speculators and, concurrently, a large amount of legitimate buying for consumption. There are 107 furnaces at work (including 12 on hematites) against 120 this date last year. Shipments to date have been

| por | t  | 2  | ,  |    | ð | Ł | C |   | 9 | - | 8 | ľ | 9 | 9 |     | ý | u   | d | ú | e | 30 | 1 |   | 0 0 |   |   | - | ( | rd  | inar | ν. | Bessemer |
|-----|----|----|----|----|---|---|---|---|---|---|---|---|---|---|-----|---|-----|---|---|---|----|---|---|-----|---|---|---|---|-----|------|----|----------|
| No. | 1  | 1  |    |    |   |   |   |   |   |   |   |   |   |   |     | 0 |     | 1 | , |   |    |   |   | 0   |   |   |   |   |     | 58/  |    | 58/6     |
| No. | 6  | 2  |    |    |   |   |   | ۰ |   |   |   |   |   |   |     |   | ,   |   |   |   |    |   | 0 |     | p |   |   |   |     | 57/  |    | 57/6     |
| No. | 7  | 3  |    |    |   |   |   |   |   |   |   | ۰ |   |   |     |   | ,   |   |   |   |    |   |   |     | 0 |   | 0 |   |     | 56/  |    | 56/6     |
| No. | 4  | ţ  | ŀ  | 'n | × | u | n | C | u | 1 | Ÿ |   |   |   |     |   |     |   |   |   |    |   |   |     | ۰ |   |   |   |     | 55/  |    |          |
| No. | 4  | Į. | F  | 1  | H | Ŋ | ζ | e |   |   |   |   |   |   |     |   |     |   |   |   |    |   |   |     |   | , |   |   | . ! | 53/  |    |          |
| Mot | t  | ł  | 64 | ű  |   | , |   |   |   |   |   |   |   | , | 0 1 | , |     |   |   |   |    |   |   |     |   | ۰ |   |   | . ! | 55/  |    | ****     |
| Whi | it | Æ  | ١. |    |   |   |   |   |   |   |   |   |   |   |     | , | 0 . |   |   |   |    |   |   |     |   | 0 |   |   |     | 54/6 |    | ****     |

Gjers' soaking pit process for heating ingots. It has been adopted at West Cumberland, by Mr. Snelus, and is likely to be used without delay at Barrow, as well as at Eston. M. Gjers states that its adoption insures a saving of 4/17 ton, by rendering reheating unnecessary.

### FREIGHTS

### SOME CURRENT PRICES LIVERPOOL

|   | extreme figures :   | t    |
|---|---|------|
|   | SOME CURRENT PRICES   | E    |
| ) | Don Ass   | T    |
|   | LIVERPOOL. Per ton.<br>£. s. d. £. s. d.  | 8    |
|   |   | 0    |
|   |   | I    |
|   | Bars, Lancashire, &c 6 7 6 to 6 10 0<br>Bars, Staffordshire Crown 6 10 0 to 7 0 0     | p    |
|   | Nail Rods, Staffordshire 6 15 0 to 7 10 0   | li   |
|   | Hoops, common 7 oo to 7 2 6   | 6    |
|   | Hoops, Staffordshire Crown. 7 50 to 9 2 6   | n    |
|   | Hoops, Ravensdale Crown R.  | d    |
|   | Hoops, patent thickened end   | ti   |
|   | hoop, with or without   | e:   |
|   | buckles 8 5 0 to  | h    |
|   | Sheets, common and naft 8 00 to 8 10 0  | d    |
|   | Sheets, Staffordshire Crown. 8 15 0 to 9 00   | lo   |
|   | Sheets, Staffordshire Best 9 00 to 11 00  | 63   |
|   | Plates, common or ship 6 15 0 to 7 5 0  | ol   |
|   | Plates, Staffordshire Crown. 7 15 0 to 8 10 0   | C    |
|   | Plates, Staffordshire Crown. 7 15 0 to 8 10 0<br>Plates, best boiler 8 5 0 to 10 10 0 | 12   |
| ٠ | Plates, Lowmoor, Bowling, &c 22 0 0 to 22 10 0  | 83   |
|   | Fencing Wire 7 10 0 to 7 15 0   | in   |
|   | Swedish hammered bars to 15 0 to 11 5 0   | 01   |
|   | Galvanized corrugated sheets, No. 20 WG £12.  | W    |
|   | 15/; No. 24, B13. 15/.  | I,   |
|   | Steel Spring 10 0 0 to 12 0 0   | fc   |
|   | Swedish hammered keg 15 0 0 to  | to   |
| 1 | Fence Wire 11 00 to 11 100  | -    |
|   | Hoops 9 50 to 10 00 Copper—Chili bars 70 10 0 to 71 00                                | 2    |
| į | Copper-Chin bars 70 10 0 to 71 0 0  |      |
| ı | Bar sheet and sheathing 82 00 to 83 00  | A    |
|   | Bottoms 85 o o to 86 o o  | in   |
|   | Tough cake or ingots 74 0 0 to 75 0 c<br>Best selected ditto 75 0 0 to 77 0 0         | alt  |
|   | Hest selected ditto 75 oo to 77 oo  | ps   |
|   | Wire & D  | an   |
| ŧ | Munts & Co., 3 Crowns, & B 63/4d.   | we.  |
| ì | Yellow metal sheathing, ditto   | th   |
|   | soft, specially made for  | Ų.LI |
| ١ | soft, specially made for India, # 10  |      |
|   | BrassWire, 9 D 7%d.   |      |
|   | Sheets, 9 D 81/4d.  |      |
|   | African rods 73 00 to 75 00   |      |
|   | TinForeign  |      |
|   | Ingot   | ex   |
|   | Bar 00 to   | A    |
| : | Best reflued 113 0 0 to   | BI   |
| į |   | th   |
| i | " ICW, W box 0 14 6 to 0 16 0   | he   |
| i | Charcoal, I C, box o 18 9 to o 23 o   | te   |
|   | Decorated and Crystalized, w  | th   |
|   | Terne Plates.—Coke, I C,* *   | In   |
|   | box 0 14 0 to 0 15 0  | W    |
|   | box 0 14 0 to 0 15 0 Charcoal, I C, 10 box 0 16 0 to 0 18 0                           | In   |
|   | Canada Plates to oo to II to o  | ar   |
| , | io/ ton less at Welsh port.   | m    |
|   | Welsh port.   | ha   |
|   | Lead Pig Spanish  | to   |

tons bars for the Continent. Price of bars was £19.15, and exchange, 35 ½d. Chilipper market has been very animated since the issue of our last report on the 15th inst., and prices have advanced from £65.5 to £70.15 for gobs to arrive, or with three months prompt guaranteed, and from \$70 to £72 per ton for fine brands. To-day there are selected to fine from the same during the exception of the continent of the same during the exception of the competence of the second of the continent of the con

12/@12/3; 30th Sept., 1879, 11/6@12/Coro Coro Barilla, to-day, 14/9; 30th Sept. 1870. 14/

Arrivale here during the thight of West Coast S. A. produce: Granica, s., from Valparaiso, &c., bars, 400; ingots, 230. Ecuador, s., from Valparaizo, via Havre, bars, 50. Benisaf, s., from Valparaiso, via Havre, bars, 200, At Swansea, Lord Mar-Havre, bars, 200, At Swansea, Lord Mar-mion, from Tocopilla, ores, 226; regulus, 509. Stocks of copper (Chilian and Boliv-ian) in first and second hands, likely to be

| available,           |   |                          |                          | -5                   |
|----------------------|---|--------------------------|--------------------------|----------------------|
| Liverpool<br>Swansea |   | Regulus.<br>455<br>3.540 | Bars.<br>14,242<br>5,825 | Ingot:<br>472<br>178 |
| W-4-1                | - | -                        |                          |                      |

representing about 22,560 tons fine copper, against 22,620 tons 15th inst.; 28,948 tons September 30, 1881; 33,584 tons September 30, 1880; 30,584 tons September 30, 1879. Stock of copper contained in other foreign ore and Spanish precipitate, 1036 tons fine, against 883 tons September 30, 1881; stock of Chili bars and ingots in Havre, 2680 tons fine, against 883 tons September 30, 1881; stock of Chili bars and ingots in Havre, 2680 tons fine, against 1288 tons September 30, 1881; fine, against 5258 tons September 30, 1881; stock of Corocoro Barilla in Havre, 45 tons stock of Corocoro Barilla in Havre, 45 tons fine, against 345 tons September 30, 1881; stock of copper other than Chili in Havre, 275 tons fine, against 1105 tons September 30, 1881; stock of Chili copper affoat and chartered for to date, 11,248 tons fine, against 8000 tons September 30, 1881; stock of foreign copper in London, chiefly Austra-lian, 7246 tons fine, against 8648 tons Sep-tember 30, 1881. tember 30, 1881.

## FOREIGN.

### FRANCE. ( Moniteur des Interets Materiels.)

FRANCE.

(Moniteur des Interets Materiels.)

PARIS, Oct. 1, 1882,—Metals,—With the exception of the late coffee failures at Havre, nothing of a disquieting nature has occurred recently, nor is there anything of the kind apparent at present. Business, therefore, now develops normally, and metals meet with a rendy demand. Copper and Tin have again improved slightly while Lead and Spelter gave way a little. We quote, at the close: Copper.—Chili Bars, 185, 26, 185, 50 francs \$1.00 kg.: Ingots and Slabs, 188, 23; Best Selected, 192, 50, and pure Corocoro Ore, 180. Banca Tin, 991, 25; Billiton, 290; Straits and Australian, 287, 50, and English, 285, 50. Lead, 15, 25 @ 36, 25, and Spelter, 44, 50 @ 44. Iron.—At the meeting of Northern rolling mill owners which was held the other day, it was decided not to sell Merchant Iron any more under 19 francs \$1 too kg., and Flooring was at the same time fixed at the minimum of 19 50, at the works, except on very large contracts. This movement has had the effect of stiffening our local market, dealers taking a firm stand since, and causing the locksmiths of this city to come forward and buy extensively on the basis of 20 @ 21 francs, Merchant, and 21 @ 21.50 was paid for Flooring and Corners. A good demand prevails for old Iron at 12.50 francs, delivered at the rolling mills. The amount of Pig Iron and special finished a sorbed in this city is steadily on the increase. Leaving out the la Villette and Grenelle rolling mills, which were only assimilated with the rest since August 1, the entries of Finished Iron into Paris have been for the first six months of the current year 25,87 tons, against 19,856 in 1881, and of Pig 24,530.

Joseph Scholer large orders continue to be received, in part for the interior and partially for Paris, about a month sooner than last year. The price paid in the district is 21 francs for Coke, merchant, and 23 for mixed. Coal.—The demand for Coal is very active and general in France, hence there is none left at the North for export to Belgium, and the p

Vellow mortal sleeching, dutto and the specially made for soft seed and specially made for special made

profit, while the blast furnaces make, comparatively speaking, a great deal more money. Foundry Fig is most wanted, and only a few furnaces in the district make it. Consequently, importation from England has assumed great proportions. Spirgel is steady. Beseener Fig is weeker. The manufacturers of Rod and special Iron and the wire-drawing mills have every reason to be contented. Black Taggers do not sell as readily as thick Sheets. Railroad material is less lively, but Steel works are busy on ingots. Bridge builders still complain, whereas the Locomotive and Carworks, Boiler makers, founders and machinists all drive an unusually active trade. Fine dividends are declared by the Rheni-h Steel Works, Harkort's mines, the Echweiler mines, the Hagen Cast Steel Works and the Annen ditto, all the way up to 13½ \$. The Conl demand increases daily, and great preparations are made to avoid a dearth of cas to convey them for the coming season. The Moselle and Sarre region is doing well, both in Fig and Finished. Coal rising. In Upper Silesia the market has remained firm, but remoter futures are decidedly duller. Puddling Fig is neglected; Foundry sustained. Finished Iron sells well—Sheets especially so. Coal in less demand.

### HOLLAND. (Koch & Vlierboom.)

ROTTERDAM. Sept. 26, 1882.—Tin.—The tendency has remained a rising one, Banca advancing to 5,25 guilders \$\varphi\$ so kg. Less favorable advices from London received yesterday, however, caused a slight reaction to 64,50 with Banca, and 64 Billiton both spot, which is the closing quotation.

### AUSTRIA.

### (Austrian Trade Journal.)

Vienna, Oct. 2, 1882.—Iron.—Nothing of special interest has occurred in the Austro-Hungarian Iron market during the week. Some blast furnace owners have thrown out the bint that the price of Fig Iron might safely be advanced a triffe, both Puddling and Foundry, but the majority of Austrian concerns have pronounced in the negative, hence there has been no change. Hungarian owners of blast furnaces would be but too willing to follow suit if we set them the example, but it will prove in the interest of all not to make the change, for prices of pig are high enough as they are, when compared with what finished Iron selfs for. As matters stand, Fig Iron moves off steadily, but the amounts changing hands are only moverate in size. The demand for finished Iron is not as lively as it has been, but sales are large enough to preclude all cause for complaint. Thus sheets and structural Iron self well, and, considering the advanced season, Rod Iron also moves off satisfac orly. Prices remain as they have been before; we quote to-day: Gray Fig. 2 ton, 52 @ 34 florins; Ressemer, 87 @ 39 at the works. Merchant, Styrian, 126 @ 130; Bohemian, 115 @ 120; sheets for locksmiths, 175 @ 185; ditto for tanks, 165 @ 170; and Beams, 185 @ 130 forins. The Governments of Austria and Hungary vie with each other to facilitate the export trade, the first via Trieste, and the latter via Flume, through the lewering of Freight rates on the respective Government railways, and a completion of the railroad system tapping the interior through these Adriate ports. This eagerness to stimulate exportation is all the greater since the opening of the St. Gothard Tunnel creates a new and promising current of trade between Italy and the Northwest via Switzerland. Metals—Sell to a moderate extent: we quote: Copper, 75 @ 95 florins Proc kg.; Tin, 135 @ 140; Lead, 17.50 @ 19; and Spelter, 20 @ 22.

# CHILL.

## (Weber & Co.)

(Weber & Co.)

Valparaiso, Aug. 18, 1832.—Copper.—Dull cable advices from England have prevented all further improvement; sales, 18,713 quintals at \$18 @ \$10.25, with 42/6 to 55/ freight. Nitrate.—Lower freight and exchange rates have advanced the price, 687,000 quintals, selling at \$2.77% @ \$2.25%. Charters during the fortnight were 20,000 tons for Europe and 4000 for the United States. Considerably more Nitrate is now pro luced in the province of Tarapaca; the recent advance in prices will stimulate the output there still more, probably. On the other hand, statistics just received from Europe prove that Nitrate consumption there has increased in a ratio hitherto unknown. Coal is excessively dull; various cargoes are on offer; the last, Newcastle and West Hartley, brought 30/8; Orrell is nominally worth 26/6. Smelting sells at \$0.25 ton. Exchange, 90 days, 34½d. @ 35d. # sliver dollar.

made. The extra welders, who were receiving \$2.50 per day, were notified that after the 1st of October they would receive \$2 per day. The extra firemen vere notified that hereater they would receive \$1.25 instead hereatter they would receive \$1.25 instead of \$1.80. Employees in the pipe finishing department who received \$1.50, were notified that their wages would be reduced to \$1.35 per day, and the wages of others were cut down in proportion. Some laborers who received \$1.10 and \$1.15 will be paid \$1. Those in the shipping department who received \$1.25 will get \$1.10, and those who were paid \$1.15 were cut down to \$1. The regular welders, firemen, machinists and pipe cutters have not yet received any notice of a reduction of their wages. The pipe cutters make from \$1.50 to \$2.50 per day, according to the quality of iron used and the kind of pipe they make. kind of pipe they make.

The receipts of the Birdsboro Co-Operative Association for the quarter ending September 30 were \$5,052.42. The association declared a dividend of 8 per cent.

## The Practical Window Sash Fastener.

Messrs. Hyde, Ayer & Co., are putting upon the market the window-sash fastener shown in the engraving. It is a fastener and shown in the engraving. It is a fastener and lock combined, and presents many features which recommend it for use. The advertisers claim for it that it is the only fastener in the market that will hold and lock a window at any point. The action of the fastener is so clearly shown in the engraving that a description is hardly necessary. A bearing plate is fixed against the sash stop, while the fastener itself is screwed to the sash. The handle of the fastener revolves in an eccenhandle of the fastener revolves in an eccentric groove in such a way as to drive the bolt more or less tightly against the stop, according to the amount of revolution given it. By



Practical Window Sash Fastener.

this construction it will be seen that any this construction it will be seen that any slight inaccuracy in the fit of the window is compensated for by the construction of the fastener. It is further recommended as preventing all rattling of windows, and is so simple that even a child can raise, lower or stop the window at any point that may be required. It has the further advantage of being put on and used without cutting or disfiguring the sash or casing. Different styles are manufactured, the kinds now offered being japaned, tuncker-bronzed and nickel-plated.

Shipments of railway materials to Mexico Shipments of railway materials to Mexico of late are on a large scale. Our last statement of exports for the week comprised the following items: Railroad cars, 39; value, \$14,000. Railroad cars, packages, 2970; value, \$18,000. Machinery, packages, 207; value, \$19,500. Nails, value, \$970. Spikes, packages, 50; value, \$262. Locomotives, 4; value, \$50,450. Manufactures of iron, packages, 3092; value, \$10,000. Activity in Mexican railway enterprise appears to be in no degree abated.

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vapor oil Torch Lamp,
the only reliable Torch ever put on the
market, and is so pronounced by all
who have tested these and other
makes. We have reached this success
after years of experimenting, and secured our first patent August 3d, 188,
No. 256.574. Since then important improvements have been added, for
which parents will be secured. Parties
putting upon the market Vapor Oil
Torches infringing our patents will be restrained by
legal proceedings.

THE DANGLER VAPOR

THE DANGLER VAPOR STOVE AND REFINING COMPANY, Cleveland, Ohio.

### FLANDERS' PATENT Portable Crank Pin Machine. ening off Crank Pins in Position and while the Wheels are under Engine.



L. B. FLANDERS MACHINE WORKS. 1025 Hamilton Street, PHILADELPHIA, PA.

## Descriptive circular on appli HOWARD IRON WORKS, BUFFALO, N. Y.,

# Manufacturers of CUTTER

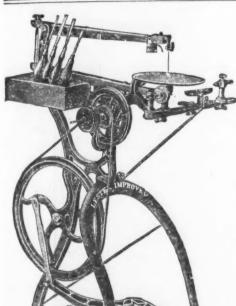
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Steel and Wood Bracket Saws FOR HAND WORK,

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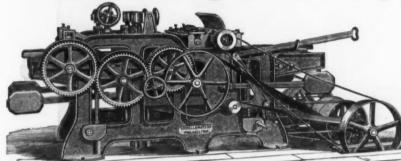
These goods are so well known that nothing is needed to sell them except to keep them in sight.

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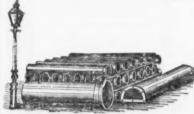
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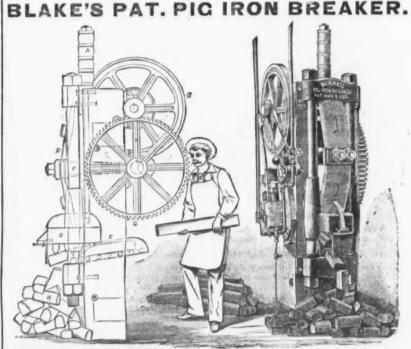
A perfect Implement for cutting Hay and Straw, or even Muck or Turf. Just the article for cutting Silos. The handles are so arranged that the operator can stand erect and put his strength directly upon the Knife.

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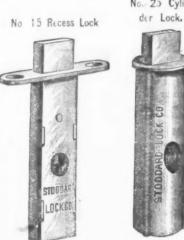
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Full Size of Patent Keyhole Drawer-Pull,

Applied with any of our Locks.

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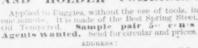
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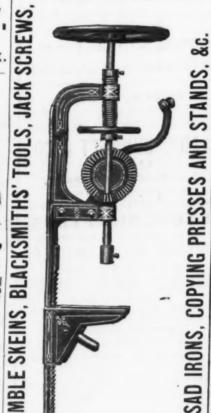


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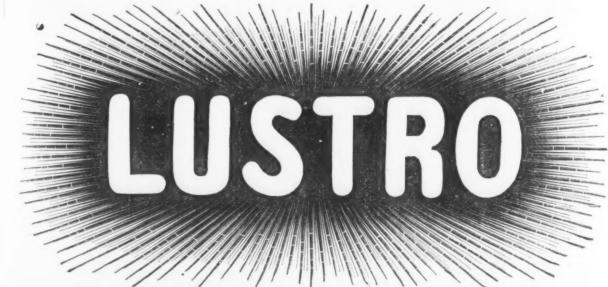
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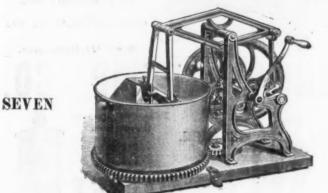
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SIZES.

For Butchers and Family Use.

The only Chopper yet invented that has proved an unqualified seccess.

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Sole Manufacturers of the Practical

# WINDOW SASH FASTENER

AND LOCK COMBINED.

Holds the Window at any point, prevents all rattling and looks the same when down.

Practical Clothes Line Holder, AND PATENT SPECIALTIES.

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Is the best, cheapest and most complete Sash Holder in the market, and has the largest sale. HOLDS THE WINDOW AT ANY POINT

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MONTPELIER, VT., MANUFACTURERS OF

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SABIN'S LEVER DOOR SPRINGS, For heavy doors,

BOSS AND CROWN SPRINGS, For light doors. Send for Catalogue

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BEST PUMP MADE!
Located at Kenton, to avoid City expenses.



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Lightning Screw-Cutting Machinery and Tools.

Celebrated Lightning Screw Plates. Lightning Bolt Cutters, both for Hand and Power, Taps and Dies for use in Machines, Screw Plates,

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Bit Brace Reamers, and other Labor-Saving Tools, for Blacksmiths and Carriage Makers.

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READ.

This is the only Stretcher made with a SELF-ADJUST-ING SLOTTED LATCH that will adjust itself to the KATCHET, either side of the post, or at either end of the wire, or either side of the post, or at either end of the wire, or either side up, the crank turning at all times in one direction, which is necessary, for reversing the crank would reverse the rope. Stretchers so constructed that the latch will drop down, except when in a certain position, are well nigh, yes, quite worthless.

Hook the eccentric at the end of the rope to the wire, now wind up and a little child can break any wire even the lio eccentric on the frame, and the other end to lip eccentric at end of rope; now draw them together and spilice. For raising host, cattie or any other weight it is indispensable. It is far superior to a hook fastened tone side of the post as, when the ground is wet, the strain b-ing on one side, has a tendency to loosen and turn the post This Stretcher BEING FARIENED TO THE POST, it is not necessary for one man to HOLD IT UP while another operates it, and follows it en route to the nost. One

FROM POST.

Price \$1.50 Each. Discount to the Trade. SHARP GIMLET POINTED ABRAM ELLWOOD, Sole Manufacturer, SYCAMORE, ILL.

> JENKINS PATENT VALVES. GATE, GLOBE, ANGLE, CHECK AND SAFETY.



Manufactured of Best Steam Metal.

We claim the following advantages over all other Valves and Gauge Cocks now in use to claim the following advantages over all other valves and under Cocks now L.—A perfectly tight Valve under any and all cressures of steam, oils or gases. 2.—Sand or Girt of any kind will not injure the seat. 3.—You do not have to take them off to repair them. 4.—They can be repaired by any mechanic in a few minutes. 5.—The elasticity of the Disc allows it to adapt itself to an imperfect surface.

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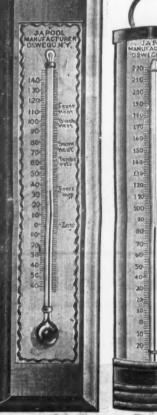
The Jenking Disc used in these Valves is manufactured under our 1880 Patent and will stand zoo lbs. steam. Sample orders solicited. All Valves so his his usage convergation.

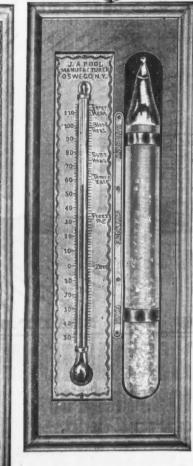
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Length % inches. Width 314 inches.

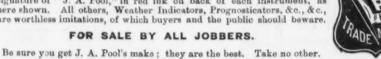
# THERMOMETER

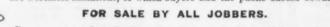
Largest Establishment of the Kind in the World. OSWEGO, OSWEGO CO., NEW YORK.

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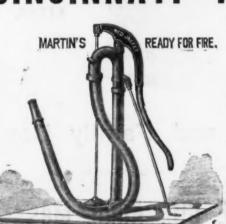
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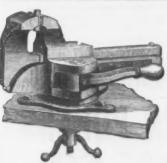
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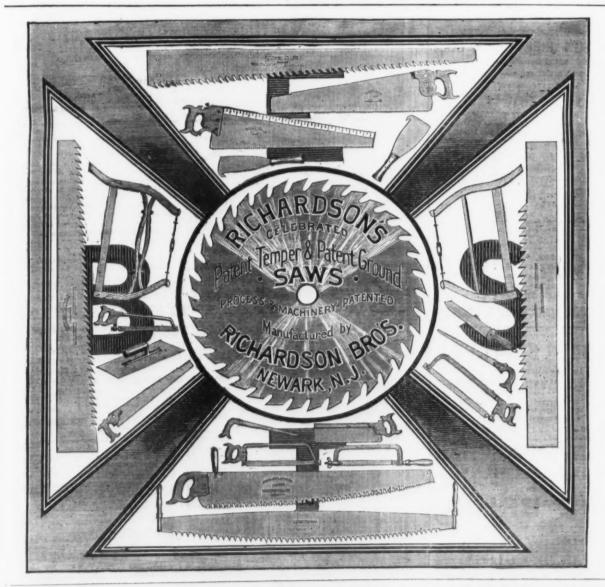
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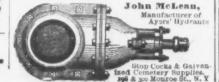
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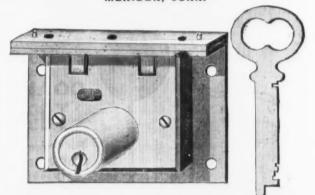
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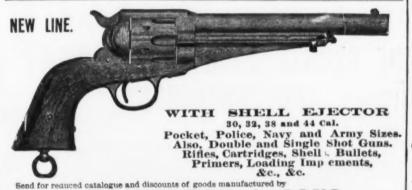
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|   | Engines, tius.  8chloicher, Schumm & Co., Philadelphis  | Inj                  |
|   | Baldwin Locomotive Works, Philadelphis, Pa. 6 Brgines, Stenm, Makers of. Cooke & Co., 12 Coutlandt, N. Y. 17 Cox & Sons, Philadelpia, Pa. 43 Ervien Chas. W. & Co., Philadelphia, Pa. 45 Hartford Engineering Co. Hartford, Conn. 41 La France Fire Engine Co., Elmira, N. Y. 41 New England Mach's Depot. 36 N. 3d. Phila. 7 Southwark Foundry & Machine Co., Philadelphia, 43 The Norwalk Iron Works Co., S. Norwalk, Conn. 42 Wetherlii Robt. & Co., Chester, Pa. 43 Facings, Foundry.   | Ire                  |
|   | Hartford Engineering Co., Hartford, Conn. 42<br>La France Fire Engine Co., Elmira, N. Y. 41<br>New England Mach'y Depot. 308 N. 3d. Phila. 7  | L                    |
|   | Southwark Foundry & Machine Co., Philadelphia.43 The Norwalk Iron Works Co., S. Norwalk, Conn42 Wetherili Robt. & Co., Chester, Pa.,  | A A                  |
|   | Emerick, J. A. & Co., Philadelphia, Pa. 3<br>Paxson J. W. & Co., \$14 Beech, Phila. Whitehead Bros., \$17 W. 18th, N. Y. 28   | Bi                   |
|   | McNap & Harlin Mfg. Co., so Gold N V  | CCCE                 |
|   | Faucets, Self-Measuring, Makers of. Enterprise Mfg. Co., of Pa, Phila, and N, Y   | M                    |
|   | Fencing. &c.<br>Champion Iron Fence Co., Kenton, Ohio   | RRR                  |
|   | Files, Importers of. Field Alfred & Co. 93 Chambers, N. Y   | TI                   |
|   | Montgomery & Co., 105 Fulton St. N. Y  Files, Mamsgacturers of. Auburn File Works, 8c Chambers, N. Y.  Barnett G. & H., 4: and 4: Richmond, Phila.  Ecynton E. M., 8c Beekman, N.  Disston Henry & Sons, Phila.  Detroit File Works, Detroit, Mich.  Everhart James M., Scranton, Pa.  Henssler Christian, Philadelphia, Pa.  Johnson & Bro., 17 commercial, Newark, N. J.  McCaffrey & Bro., 1731 and 1734 N. 4th, Phila.  Nicholson File Co., Providence, R. I.  Northwestern File Works.  Paul Chas, H., williamsburgh N. Y.  Spencer, Mathias & Sons, Sheffield, England.  The J. Barton Smith Co., Philadelphia, Pa.  Union File Works, Baltimore, Md.  Fire Brick, Makers of. | Ire<br>B             |
|   | Boynton E. M., So Beekman, N. Y. 44 Disston Henry & Sons; Phila. 20 Detroit file Works, Detroit, Mich. 16 Everhant James W. Scranton de 16  | E G                  |
|   | Henssier Christian, Philadelphia, Pa  | lro<br>H             |
|   | Northwestern File Works 8 Paul Chas. B., Williamsburgh N. Y. 8 Spencer, Mathias & Sons, Shemelo, England. 16  | LO                   |
|   | The J. Barton Smith Co., Philadelphia, Pa   | Bi<br>Fi<br>H        |
|   | Colson Chas. D., Chicego, Ill. 30 Gardner drothers, Pittsburgh, Pa. 30 A. Hall Terra Cotta Co., Perth Amboy, N. J. 30   | L                    |
|   | Maurer Henry, 416 East 23d, N. Y. 30  | A A                  |
|   | Newton & Co., Albany, N. Y. 30 Ostrander James & Son, Troy, N. Y. 30 Rimington S. A., 40 and 42 Broadway, N. Y. 30 Union Mining Co., Philadelphia, Pa. 30   | Bi<br>Ci<br>Ci       |
| I | Union File Works. Baltimore, Md.  Sire Brick, Makers or, Borgner & O'Brien, Philadelphia, Pa. Colson Chas. D., Chiosgo. Ill   | E H                  |
|   | Wheeling Hinge Co., Wheeling, W. Va   | H                    |
|   | Forges. Portable, &cc.  Buffalo Forge Co. Mrs. Buffalo, N. \  | K L                  |
|   | Keystone Postone Store Co. 18 Carter, Phil. 15 Forgings, Iron and Store, Chicago Steel Horse Shoe Co., Chicago, Ill. 18 Hubbard Charles, 46 Cliff, N. 9 Kose Wm. & Bros. West Philadolphis, Fa. 6   | M<br>N<br>O          |
|   | Koee Wm. & Bros. West Philadelphia, Fa. 0 Foundry Supplies. Sucrité J. A. & Co. Philadelphia, Pa. 5 Obermayer, S. & Co. Cincinnati, O. 12   | PORV                 |
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|   | Furnace Charging ≤cale.<br>Richlé Bros., Philadelphia, Pa   | Ire                  |
|   | Furnace for Setting Steam Bollers,<br>Upton A. F. Boston, Mass  | Ire                  |
|   | Furnace Shields. McDonald H. Pittsburgh. Pa. 40 Furniture Springs. Cary & Moen. 234 W. 29th. N. Y. 3  | RRW                  |
|   | Gause Cocks.  Murrill & Keizer, Baltimore, Md   | Ire<br>H             |
|   | Grante Iron Ware. St. Louis Stamping Co., St. Louis, Mo   | M I                  |
|   | Salamander Grate Bar Co 110 Liberty, N. Y   | La<br>D<br>H         |
|   | Ohio Grindstone Co., Cleveland, O   | Le P                 |
| - | Handles (Hickory) and Spekes.  Hundles, V. G., 79 Reade, N. Y   | I.e                  |
|   | Creswell David S. Philadelphia. Pa.  Salamander Grate Bar Co. 10 Liberty, N. Y  | Le                   |
|   | Brower & Leeds. 8: Murray. N. Y   | H<br>Bi              |
|   | Wheeler A. W., Chicago, Ill   | T                    |
|   | Field Alfred & Co., or Chambers, N. V   | I B:                 |
|   | McCoy & Sanders. 43 Chambers. N. Y  | Bl<br>Be<br>De<br>Fe |
|   | Globe Mfg. Co., Middletown, Conn. 38 L. Hommedieu Hdw. Co., 96 Chambers, N. Y. 35 Lloyd, Supplee & Walton, 225 Market St., Phila., Pa. 25   | ENP                  |
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|   | Van Wagoner & Williams, & Beekman, N. Y   | Ma<br>Fe             |
|   | Spencer & Underhill, 04 Chambers, N. Y. 150 Tower John J., 96 Chambers, N. Y. 26 Wollensak J. F., Chicago, Ill. 40  | F                    |
|   | Covert Mfg. Co., West Troy, N. Y  | Jo<br>K<br>Se<br>W   |
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|   | Stanley Works, New Britain, Conn  | Me                   |
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| Chicago Steel Horse Shoe Co. 18 Rhode Island Horse Shoe Co., Providence, R. I. 33 Schoenberger & Co., Pittsburgh, Pa. 4 The Burden Iron Co., Troy, N. V. 4 Hot, Blant November 1988  | 1  |
| THE PARTY OF PARTY OF THE PARTY | 1. |
| Witherow & Gordon, Pittsburgh, Pa  | 1  |
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| Dudgeon Richard, 24 Columbia, N. Y   | -  |
| White Mountain Freezer Co., Laconia, N. H  | 1  |
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| Alladelphia, Ps.   42   8   67   7   7   7   7   7   7   7   7   | Tucker Alarm Till Co., Indianapolis, Ind. 10 Tacks. Tucker Alarm Till Co., Indianapolis, Ind. 10 Tacks. And Rocan Tack Co., Fairhaven, Mass. 18 And Rocan Tack Co., Fairhaven, Mass. 18 And Rocan Tack Co., Fairhaven, Mass. 19 Grundy & Disosway, 160 Greenwich, V. V. 12 Fhillips E. & Sons, South Manover, Mass. 19 Taps and Dies. Carpenter J. M., Pawtucket, R. 1. 44 Manning, Maxweil & Moore, III Liberty, N. 42 Wiley & Russen Bick, Co., Greenfield, Mass. 27 Testing Machines. Olsen Timus & Co., Philadelphia, Pa 18 Richi & Bros., Fhiladelphia, Pa 18 Richi & Bros., Fhiladelphia. 18 Formometers. Oswego Thermometer Works, Oswego, N. Y. 28 Media Mife Co. 10 Thermometers. Oswego Thermometer Works, Oswego, N. Y. 28 Tool Chests American Tool Co., 116 Chambers, New York. 26 Tools. Fitenin and Gins Fitters. Ashcroft Wig, Co., 111 Liberty, N. 42 Earon, Cole & Burnham Co., 43 John, N. Y. 47 D. Saundors Sons, Yonkers, N. Y. 19 Turches. D. Saundors Sons, Yonkers, N. Y. 19 Turches. Hull Vapor Stove and Refining Co., Cleveland, Ohlo. 28 Daugler Vapor Stove and Refining Co., Cleveland, Ohlo. 28 Tucks, Manufacturers of, Carr & Hobson, 47 Cliff, New York 19 Penfield Block Co., Lockport, N. Y. 18 Try Squares, Bevels, & C., Makers of, Disston Honry & Sons, Phila. 29 Tube Kapanders. Dudgeon Richard, 24 Columbia, N. Y. 19 Turches. Telescope. R. T. Deakin Philadelphia, Pa. 31 Tubing. Merchant & Co., 135 Arch, Phila. 26 Turning (Wood). Ripley Mg, Co., Unionville, Conn. 27 Tuyere Frans. & C. Morgan A. W. & Co., Indianapolis, Ind. 28 Morgan A. W. & Co., Unionville, Conn. 27 Tuyere Frans. & C. Morgan A. W. & Co., Meterford, Mass., 38 Valves, Gas. Water and Steam, Fundow Valve Mg, Co., Troy, F. Y. 326 39 Howell & Co., Waterford, N. Y. 326 39 Howell & Go., Coteland, O. 9 Howell Chas. H. & Co., Philadelphia, N. Y. 326 39 Howell Reside & Co., Chilange, N. Y. 326 30 Howell Reside & Co., Chilange, N. Y. 326 30 Howell Reside & Co., Chilange, N. Y. 326 30 Howell Reside & Co., Chilange, N. Y. 326 30 Howell Reside & Co., Chilange, N. Y. 326 30 Howell Resid |
| Alladelphia, Ps.   42   8   67   7   7   7   7   7   7   7   7   | Tucker Alarm Till Co., Indianapolis, Ind. 10 Tacks. Tucker Alarm Till Co., Indianapolis, Ind. 10 Tacks. And Rocan Tack Co., Fairhaven, Mass. 18 And Rocan Tack Co., Fairhaven, Mass. 18 And Rocan Tack Co., Fairhaven, Mass. 19 Grundy & Disosway, 160 Greenwich, V. V. 12 Fhillips E. & Sons, South Manover, Mass. 19 Taps and Dies. Carpenter J. M., Pawtucket, R. 1. 44 Manning, Maxweil & Moore, III Liberty, N. 42 Wiley & Russen Bick, Co., Greenfield, Mass. 27 Testing Machines. Olsen Timus & Co., Philadelphia, Pa 18 Richi & Bros., Fhiladelphia, Pa 18 Richi & Bros., Fhiladelphia. 18 Formometers. Oswego Thermometer Works, Oswego, N. Y. 28 Media Mife Co. 10 Thermometers. Oswego Thermometer Works, Oswego, N. Y. 28 Tool Chests American Tool Co., 116 Chambers, New York. 26 Tools. Fitenin and Gins Fitters. Ashcroft Wig, Co., 111 Liberty, N. 42 Earon, Cole & Burnham Co., 43 John, N. Y. 47 D. Saundors Sons, Yonkers, N. Y. 19 Turches. D. Saundors Sons, Yonkers, N. Y. 19 Turches. Hull Vapor Stove and Refining Co., Cleveland, Ohlo. 28 Daugler Vapor Stove and Refining Co., Cleveland, Ohlo. 28 Tucks, Manufacturers of, Carr & Hobson, 47 Cliff, New York 19 Penfield Block Co., Lockport, N. Y. 18 Try Squares, Bevels, & C., Makers of, Disston Honry & Sons, Phila. 29 Tube Kapanders. Dudgeon Richard, 24 Columbia, N. Y. 19 Turches. Telescope. R. T. Deakin Philadelphia, Pa. 31 Tubing. Merchant & Co., 135 Arch, Phila. 26 Turning (Wood). Ripley Mg, Co., Unionville, Conn. 27 Tuyere Frans. & C. Morgan A. W. & Co., Indianapolis, Ind. 28 Morgan A. W. & Co., Unionville, Conn. 27 Tuyere Frans. & C. Morgan A. W. & Co., Meterford, Mass., 38 Valves, Gas. Water and Steam, Fundow Valve Mg, Co., Troy, F. Y. 326 39 Howell & Co., Waterford, N. Y. 326 39 Howell & Go., Coteland, O. 9 Howell Chas. H. & Co., Philadelphia, N. Y. 326 39 Howell Reside & Co., Chilange, N. Y. 326 30 Howell Reside & Co., Chilange, N. Y. 326 30 Howell Reside & Co., Chilange, N. Y. 326 30 Howell Reside & Co., Chilange, N. Y. 326 30 Howell Reside & Co., Chilange, N. Y. 326 30 Howell Resid |
| Alladelphia, Ps.   42   8   67   7   8   7   7   7   7   7   7   7   | Tucker Alarm Till Co., Indianapolis, Ind. 10 Tacks. Tucker Alarm Till Co., Indianapolis, Ind. 10 Tacks. Cobb & Drew, Plymouth, Mass  |
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| Alladelphia, Ps.   42   8   67   7   7   7   7   7   7   7   7   | Tucker Alarm Till Co., Indianapolis, Ind. 10 Tacks. American Tack Co., Fairhaven, Mass. 8 American Tack Co., Fairhaven, Mass. 12 Grundy & Disosway, 16; Greenwich, V. V. 12 Grundy & Disosway, 16; Greenwich, V. V. 12 Grundy & Disosway, 16; Greenwich, V. V. 12 Taps and Dies. Carpenter J. M., Pawtucket, R. 1. 44 Manning, Maxweil & Moore, 11; Liberty, N. Y. 42 Wiley & Russen in St. Co., Greenleid, Mass. 27 Testing Machines. 18 Fire thenders. 18 Fire thenders. 18 Fire thenders. 18 Fire thenders. 19 Medina Mig. Co. Thiladelphia. 18 Fire thenders. 19 Thermometers. 19 Thermometers. 19 Thermometers. 19 Thermometers. 19 Thermometers. 19 Tagel Charles and Gine Fitters. 19 American Tool Co., 116 Chambers, New York. 26 American Tool Co., 116 Chambers, New York. 26 Taglis, Steam and Gine Fitters. 19 Asheroft Wig. Co., 111 Liberty, N. Y. 12 Eaton, Cole & Burnham Co., 45 John, N. Y. 14 D. Saunders Sons, Yonkers, N. Y. 19 Torches. 19 Hillings, G. W., Claveland, Ohio. 24 Eaton, Cole & Burnham Co., 45 John, N. Y. 19 Torches. 19 Hillings, G. W., Claveland, Ohio. 26 Tucks, Manufacturers 27 Carr & Hobson, 47 Cliff, New York. 19 Try Squares, Bevels, Ave., Makers of. 20 Trucks, Manufacturers 27 Tubes. Stepanders. 29 Tubes. Telescope. 19 Tubes. Maker 27 Tubes. Stemmless. 19 Charles H. Besley & Co., Chicago, Ill. 29 Tubes. Telescope. 19  |
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| Alladelphia, Ps.   42   5   67   7   7   7   7   7   7   7   7   | Tucker Alarm Till Co., Indianapolis, Ind. 10 Tacks. Tucker Alarm Till Co., Indianapolis, Ind. 10 Tacks. Cobb & Drew, Plymouth, Mass. 12 Grundy & Disosway, 164 Greenwich, V. V. 12 Grundy & Disosway, 164 Greenwich, V. V. 12 Grundy & Disosway, 164 Greenwich, V. V. 12 Taps and Dies. Carpenter J. M., Pawtucket, R. 1. 44 Manning, Maxwoii & Moore, III Liberty, N. Y. 42 Wiley & Russeii Bik, Co., Greenielo, Mass. 27 Testing Machines. Olsen Timius & Co., Philadelphia, Pa. 18 Richi & Bros., Fhiladelphia. 18 Hedina Mig. Co. 10 Thermometers. Oswego Thermometer Works, Oswego, N. Y. 26 Medina Mig. Co. 10 Thermometers. Oswego Thermometer Works, Oswego, N. Y. 26 Tool Chests. American Tool Co., 116 Chambers, New York. 26 Tools. Tieaum and Gins Fitters. Ashcroft Mig. Co., III Liberty, N. T. 27 Eaton, Cole & Burbham Co., 45 John, N. Y. 47 Eaton, Cole & Burbham Co., 45 John, N. Y. 47 Eaton, Cole & Burbham Co., 45 John, N. Y. 47 Hillings, G. W., Cleveland, Ohio. 24 Hull Vapor Stove Co., Cleveland, Ohio. 26 Trucks, Manufacturers 01, Carr & Hobson, 47 Cliff, New York. 10 Penfield Block Co., Lockport, N. Y. 18 Try Squares, Hevels, &c., Makers of, 19 Try Squares, Hevels, &c., Makers of, 19 Tubes, Seumiess. Charles H. Beslev & Co., Chicago, Ill. 29 Tubes, Seumiess. Charles H. Beslev & Co., Chicago, Ill. 29 Tubes, Telescope, R. T. Deakin Philadelphia, Pa. 33 Tubing. Serohant & Co., Cat Arch, Phila. 26 Turniny (Wood). Turniny (Wo |
| Alladelphia, Ps.   42   5   67   7   7   7   7   7   7   7   7   | Tucker Alarm Till Co., Indianapolis, Ind. 10 Tacks. Tucker Alarm Till Co., Indianapolis, Ind. 10 Tacks. Cobb & Drew, Plymouth, Mass. 12 Grundy & Disosway, 164 Greenwich, V. V. 12 Grundy & Disosway, 164 Greenwich, V. V. 12 Grundy & Disosway, 164 Greenwich, V. V. 12 Taps and Dies. Carpenter J. M., Pawtucket, R. 1. 44 Manning, Maxwoii & Moore, III Liberty, N. Y. 42 Wiley & Russeii Bik, Co., Greenielo, Mass. 27 Testing Machines. Olsen Timius & Co., Philadelphia, Pa. 18 Richi & Bros., Fhiladelphia. 18 Hedina Mig. Co. 10 Thermometers. Oswego Thermometer Works, Oswego, N. Y. 26 Medina Mig. Co. 10 Thermometers. Oswego Thermometer Works, Oswego, N. Y. 26 Tool Chests. American Tool Co., 116 Chambers, New York. 26 Tools. Tieaum and Gins Fitters. Ashcroft Mig. Co., III Liberty, N. T. 27 Eaton, Cole & Burbham Co., 45 John, N. Y. 47 Eaton, Cole & Burbham Co., 45 John, N. Y. 47 Eaton, Cole & Burbham Co., 45 John, N. Y. 47 Hillings, G. W., Cleveland, Ohio. 24 Hull Vapor Stove Co., Cleveland, Ohio. 26 Trucks, Manufacturers 01, Carr & Hobson, 47 Cliff, New York. 10 Penfield Block Co., Lockport, N. Y. 18 Try Squares, Hevels, &c., Makers of, 19 Try Squares, Hevels, &c., Makers of, 19 Tubes, Seumiess. Charles H. Beslev & Co., Chicago, Ill. 29 Tubes, Seumiess. Charles H. Beslev & Co., Chicago, Ill. 29 Tubes, Telescope, R. T. Deakin Philadelphia, Pa. 33 Tubing. Serohant & Co., Cat Arch, Phila. 26 Turniny (Wood). Turniny (Wo |
| Alladelphia, Ps.   42   5   6   7   7   7   7   7   7   7   7   7  | Tucker Alarm Till Co., Indianapolis, Ind. 10 Tacks. Tucker Alarm Till Co., Indianapolis, Ind. 10 Tacks. Cobb & Drew, Plymouth, Mass  |
| Allactown, Pa.   42   5   67   67   67   67   67   67   67   | Tucker Alarm Till Co., Indianapolis, Ind. 10 Tacks. Tucker Alarm Till Co., Indianapolis, Ind. 10 Tacks. Cobb & Drew, Plymouth, Mass  |
| Alladelphia, Ps.   42   8   67   7   7   7   7   7   7   7   7   | Tucker Alarm Till Co., Indianapolis, Ind. Tackes, Tucker Alarm Till Co., Indianapolis, Ind. Tackes, Co. Fairhaven, Mass.  Cobb & Drew, Plymouth, Mass.  12 Grundy & Disosway, 164 Crocenwich, V. Y. 12 Phillips E. & Sons, Bouth Anapover, stass.  Taps and Bless. Carpenter J. M., Pawtucket, R. I. Manning, Maxweit & Moore, III Liberty, N. Y. Medina Mig. Co.  Testing Machiners Olse of Thermometer Works, Oswego, N. Y.  American Tool Co., 116 Chambers, New York.  Cowego Thermometer Works, Oswego, N. Y.  American Tool Co., 116 Chambers, New York.  American Sons, Yorkers, N. Y.  Tools, Stream and Gine Hitters.  Ashcroft Mig. Co., 111 Liberty, N. 16  Baukler Vapor Stove and Mefining Co., Cleveland, Ohlo.  Corr & Hobson, 47 Cliff, New York.  Penincid Hock Co., Lockport, N. Y.  Tubes, Manufacturers of,  Carr & Hobson, 47 Cliff, New York.  Penincid Hock Co., Lockport, N. Y.  Tubes, Stapanders,  Dudgeon Richard, 22 Columbia, N. Y.  Tubes, Stapanders,  Dudgeon Richard, 22 Columbia, N. Y.  Tubes, Stapanders,  Charles H. Besley & Co., Chicago, III.  Turniny (Wood),  Ripley Mig. Co., Unionville, Conn.  27 Tubes, Stapanders,  Charles H. Besley & Co., Chicago, III.  Twist Hydron, A. & Co., Chicago, III.  Twist Hydron, A. & Co., Chicago, III.  Turniny (Wood),  Ripley Mig. Co., Unionville, Conn.  27 Tubes, Stapanders,  Charles H. Besley & Co., Chicago, III.  The Eddy Valve Co., Waterforo, N. 10  Valves Hydron, Works, Buffalo, N. Y.  40 Fernatias Vise Co., Sp. Peni, N. Y.  18 Group Hydron, A. S.  Well Hydron, A. |
| Allactown, Pa.   42   5   67   67   67   67   67   67   67   | Tucker Alarm Till Co., Indianapolis, Ind. 10 Tacks. Tucker Alarm Till Co., Indianapolis, Ind. 10 Tacks. Cobb & Drew, Plymouth, Mass  |

# NEW YORK WHOLESALE PRICES, October 18, 1882.

# METALS. | RON\_-DUTY\_Bars, r to tige. 單 第 ; Sheet, Hand Hook and Serell, rig to tige. 單 第 ; provided, that none of the above from shall pays. less rate of duty than "Tought Scrap, \$8 \$ ton : Cast Scrap, \$6 \$ ton. Rall-road, rec. \$7 ton B. Boller and Plate, tige. 單 \$8. American Iron. Foundry, No. 1x Foundry, No. 2x Gray Forge. Scotch Iron. # ton 23,50 @ 24 00 # ton 25,50 @ 26,00 # ton 25,50 @ 26,00 # ton 25,50 @ 26,00 # ton 26,75 @ 27,00 Ratts. Grap 8 1 20.00 € 30.00 Wrought Scrap 10 2 2 20.00 € 30.00 2 2 20.00 € 30.00 2 2 20.00 € 30.00 2 2 20.00 € 30.00 2 3 20.00 € 30.00 2 3 20.00 € 30.00 2 3 20.00 € 30.00 3 3 20.00 € 30.00 3 3 20.00 € 30.00 3 3 20.00 € 30.00 3 3 20.00 € 30.00 3 3 20.00 € 30.00 3 3 20.00 € 30.00 3 3 20.00 € 30.00 3 3 20.00 € 30.00 3 3 20.00 € 30.00 3 3 20.00 € 30.00 3 3 20.00 € 30.00 3 3 20.00 € 30.00 3 3 20.00 € 30.00 3 3 20.00 € 30.00 3 3 20.00 € 30.00 3 3 20.00 € 30.00 3 Bar Iron from Store. Common Iron ominon iron \$\forall \text{in. round and square.} \\ \partial \text{p} \\ \text{b} \\ 1 to 6 \in.\partial \text{sto.} \\ \text{to.} \\ \text{in. round and square.} \\ \partial \text{p} \text{ n. 2.0} \\ \text{ol. n. \text{sq. sq. to.} \\ \text{p} \text{ n. 2.0} \\ \text{sq. sq. to.} \\ \text{m} \text{ n. 2.0} \\ \text{p} \text{ n. 3.1} \\ \text{col. n. 2.0} \\ \text{p} \text{ n. 3.1} \\ \text{col. n. 2.0} \\ \text{p} \text{ n. 3.1} \\ \text{col. n. 3.1} \\ \text{p} \text{ n. 3.1} \\ \text{col. n. 3.2.1} \\ \text{p} \text{ n. 3.1} \\ \text{col. n. 3.2.1} \\ \text{p} \text{ n. 3.1} \\ \text{col. n. 3.2.1} \\ \text{p} \text{ n. 3.1} \\ \text{col. n. 3.2.1} \\ \text{p} \text{ n. 3.2.1} \\ \text{col. n. 3.2.1} \\ \text{p} \text{ n. 3.2.1} \\ \text{col. n. 3.2.1} \\ \text{p} \text{ n. 3.2.1} \\ \text{p} \text{ n. 3.2.1} \\ \text{col. n. 3.2.1} \\ \text{p} \text{ n. 3.2.1} \\ \text{col. n. 3.2.1} \\ \text{p} \text{ n. 3.2.1} \\ \text{col. n. 3.2.2} \\ pper Bottoms. # b 300 to Copper is Sheathing except 14x40 inches, and not exceed 34 oz. to the sq. ft. SPELTER .-- DUTY: In Pigs, Bars and Pites, \$1.5 O'NELLS PATEST PLANSHED COFFEE.—Net. 14x #8. and 16 oz. and heavier.. \$\mu\$ 8 yec By the case. \$\mu\$ m 360 oz. and lighter........... \$\mu\$ 8 soc "" \$\mu\$ 30 oz. and lighter............... \$\mu\$ 8 soc "" \$\mu\$ 30 oz. and leavier....... \$\mu\$ 8 soc By the case. \$\mu\$ 360 oz. and heavier.. \$\mu\$ 8 yec By the case. \$\mu\$ 380 oz. and not over zo it. wide.) 24x48&30x90. Brown & Sharp's Gauge the Standard for Metals. Old English Gauge the Standard for Wire. Brass Manupactuliers' Phice List.—(Is. 30 5. inclusive one to No. 26, inclusive, and widths over 22 to 26 inclusive. (B advance on each No. above 12 to 26 All Nos. to No. 28, 11 in the last of the Metal, in width z in. to 1 in. thinner than No. 28, 20 W 2 tal, in width 1 in, to be in, thinner than No. 26, 30 # 3 advance. Metal in width 16 in. to 14, inclusive, not thinner than No. 28, 20 % B advance. Metal. in width 56 in. to 14 thinner than No. 28, 50 % B edvance. etal, ¼ in. in width and less, 100 F B advance. my of the above widths cut to particular lengths, add GERMAN SILVER MARKET METAL AND WIRE. Market Metal, Wire per cent., 12 Inch to No. 26.... Advance ze, for each additional inch in width above in, and zc. > 5 on each No. thinner than Nos. z6 to 12 III. and 2C. # 20 III costs 1. And 3C. # 20 III costs 3C, inclusives Silver thinner that No. 36 is Platers', at acc. # b additional. German Silver Scrap, one-half less than net price of Arin. Market Metal. German Silver Turnings. Filings and Chips. half the price of Scrap. BLASS AND COPPER WIRE. Glid's and No. How Wire se 1: 25 advance 254 a.53 Surfing Wire se 1: 25 advance 25 adva iss Rods, No. 8 and larger, not less than 2 feet lengths, Sc. Whe straightened and cut smaller than No. 8 and not less than 2 feet lengths, 49. Whe and Rods less than 2 feet lengths, special rates. Twelve cents per 2 extra for spooling on 1 is spools o No. 30. O NO. 30. Brass Pati Flors Miscellangous. \$0.50 Brass Door Rail Scrap - Net. 43 High Brass Scrap the Law Brass Scrap to Law Brass Scrap to Gidding Turnines, Fulfuse and Chips half the price of Scrap Terms - Not cach. Interest to be added after thirty

|  |                  | of course bes       | Glue, Wnite.<br>Glue, Sheet.<br>Glaziers' Points, Zine   |             |          |          |
|--|------------------|---------------------|--|-------------|----------|----------|
| ZINC TUBING  | -dis. 25 %.      |                     | Glue, Sheet  |             |          | ******   |
| intch and Extra Patterns<br>GERMAN SILVER TO   |                  |                     | Glaziers' Points, Zine   |             |          |          |
| юу   |                  |                     | Gum, Copal   |             |          |          |
| tch and Extra Patterns   |                  |                     | Gum, Damar   |             |          |          |
| GERMAN SILVER TO   | BIRGdis :        | 25 %.               | Gum Shellac, English   |             |          | *****    |
| 'er cent   |                  |                     |  | k           |          |          |
|  |                  |                     | Litharge. Pumice Stone, selected Lu Pumice Stone, Powdered.  |             |          |          |
| er cent er cent er cent er cent er cent  |                  |                     | Pumice Stone, selected La  | mps         |          |          |
| er cent  |                  | 1.20                | Pumice Stone, Powdered.  |             |          |          |
| er cent  |                  | I.38                | Punice stone, Powdered. Pine Tar, bbis. Pitch. Putty, in bladders. Putty, in buik. Rosin—Common and Good   |             |          |          |
| 'er cent   |                  | 1.45                | Pitch  |             |          | \$2      |
| 'er cent   |                  |                     | Putty, in bladders   |             |          |          |
| er cent  |                  | 1.60                | Putty, in bulk   |             |          |          |
| EELDUTY: Bars, In  | gots, Sheet      | ts and Colls.       | Rosin-Common and Good  | -Strain     | ned      |          |
| alued at zc # %, or under  | c. 24540 : OV    | er 2c and not       | E&F  |             |          |          |
| er cent. er cent. EEL.—Duty: Bars, In iued at 7c P B, or under over 11, 3c P B; over 11, 3c aliway Bars, 14c P B. H P B. Provided, that Met our Iron by the Bessener | lee or th. an    | id to % ad val.     |  |             |          |          |
| allway Bars, 1140 P B. H   | tailway Barr     | . in part Steel.    | i & K.<br>M & N.<br>Spirits Turpentine   |             |          | 83.1     |
| F B. Provided, that Met  | tal cemente      | f. cast or made     | MAEN   |             |          | . \$3.8  |
| om Iron by the Bessemer  | or pneuma        | tic process, of     | Spirits Turnentine   |             |          | 55160    |
|  |                  |                     | Whiting Spanish  |             |          | 11173378 |
| natever form or descripti<br>i <b>erican Cast Steel.</b><br>or American Steel see que<br>Pittsburgh.   | total namena roc | C. 4486175-C13 4989 | Wagte No 1 Con   |             |          |          |
| r American Steel see one   | otationsunc      | ler heading of      | Waste No r White Machin  | 0           |          |          |
| Pittahuroh   | Dentaria mar     | to monding or       | Waste, No. 1 White Machin  | Constant of |          |          |
|  |                  |                     | Waste, No. 2 White machin  | Mer sees    |          |          |
| grants Court   |                  | 30 th artico        | Waste, No. 1 Colored   |             |          |          |
| etwo Cloud   |                  | 70 m 1579C          | Waste, No. 2 Colored   |             |          |          |
| set Cast.<br>ktra Cast.<br>ound Machinery, Cast<br>waged, Cast<br>est Double Shear   |                  | 20 to 1058G         | Spirits furpentine Whiting Spanish Waste, No. 1 Cop Waste, No. 1 White Machin Waste, No. 2 White Machin Waste, No. 1 Colored Waste, No. 2 Colored Waste, Washed Machine  | *******     | *****    |          |
| unuad Coat   |                  | 20 th 100           |  | nas.        |          |          |
| Vaged, Cast  |                  | to 10 10C           | Prices current p   | are hora    | of to f  | oot.     |
| sat Double Shear   |                  | IN 1459C            | New list, Ja   | WINDER I    | w 1997   | cer      |
| ister, 1st quality   |                  | 4 m 13c             | AVEW HEE, See  | munty 1     | 7, 1002. |          |
| man steel, Best  |                  | F B HC              | Single   | Thick.      |          |          |
| quality  |                  | In 10 10C           | particular and the second seco |             | -        | -        |
| quality<br>et Cast Steel, 1st quality.   |                  | # Th 90             | SIZES,   | IST.        | 2d.      | 3d.      |
| et Cast Steel, 1st quality.  |                  | # B 1516C           |  |             |          | -        |
| quality  |                  | F B 1459C           | 6 x 8 to 10 x 15   | . \$10.00   | 8 9.25   | \$ 9.0   |
| quality  |                  | # B-12560           | 11 X 14 to 16 X 24   | . 11.50     | 10.75    | 10,2     |
| TIMONY   |                  | Trade Report        | 18 X 29 to 20 X 30,  | . 14-75     | 13.75    | 12.5     |
| A D DUTY : PIK, \$2 W 10   | DO D Old L       | end, 1360 W m       | 15 X 36 to 24 X 30   | 10.50       | 14.75    | 13.0     |
| pe and Sheet, 2Mc W B.   |                  |                     | 26 X 28 to 24 X 36   | 17.50       | 16.00    | 14.0     |
| rican  |                  | 476 @ 4560          | 26 X 36 to 26 X 44   | . 18.75     | 17.25    | 14.5     |
| *********** ************   |                  | 7C. net             | 26 X 46 to 30 X 50   | 20.50       | 19.25    | 16.5     |
|  |                  | 7%c, dis to %       | 30 x 52 to 30 x 54   | 22.75       | 21.00    | 18,0     |
| Lined Pipe   |                  | 150, dis 10 %       | 30 x 56 to 34 x 5  | 2,1.00      | 22.00    | 19.7     |
| £  |                  | 8c, dis 10 %        | 34 X 58 to 34 X 60   | 25.25       | 23.75    | 21.50    |
|  | Dre              | p 7c, Buck, 8c      | 36 x 60 to 40 x 60   | 28.50       | 26,00    | 23-7     |
| quality. TIMONY AD.—DUTT: Pig. \$2 \( \psi \) is per and Shoot, sign \( \psi \) b. wrican. Lined Pipe.  t. led Shot.  RABBITT  |                  | 8c                  | Double   | Title Loaks |          |          |
| BABBITT  | METAL.           |                     |  |             |          | -        |
| **   |                  | 90 W                | SIZES.   | 18%.        | ad.      | 3d.      |
| -CoII  |                  | 4 m dc              |  | -           | -        | 4        |
| 280 ; B. 2°C; C. 15.   | Warmen an        | A (Wasses           | 6 x 8 to 10 x 15   | 813.00      | \$12.25  | \$11.75  |
| DUIY: Plates, Sheets   | Tagger an        | d Terne, 1.1c       | 11 X 14 to 16 X 24   | 15.75       | 14-75    | 14.00    |
| U  | Tates, 2c W      | m; manurac-         | 11 X 14 to 16 X 24<br>18 X 22 to 20 X 30   | 20.00       | 18.50    | 17.00    |
| es of, not enumerated, 3   | 5 per cent.      | ad val. Bars,       | 15 X 36 to 24 X 30   | 22.00       | 30.00    | 17.79    |
| CK SEI Pigs Iree. Ban  | ca, subject      | to duty of 10       | 26 X 28 to 24 X 36   | 24.00       | 22.50    | 19.24    |
|  |                  |                     | 15 X 36 to 24 X 30.<br>26 X 28 to 24 X 76.<br>26 X 36 to 26 X 44.<br>26 X 46 to 30 X 50.   | 25.00       | 23,50    | 20.00    |
| A  |                  | W TO 28 68 29C      | 26 X 46 to 30 X 50   | 27.00       | 25.25    | 22,00    |
| :a   |                  | # ID 2534 @ 26c     |  |             | 28.00    | 34.00    |
| 18h  |                  | # 10 25 % @ 26C     | 30 X 56 to 34 X 56   | 31.50       | 20.00    | 26.24    |
| TIN P  | ER.              |                     |  |             |          | 28, 40   |
|  |                  |                     | 36 x 60 to 40 x 60   | 37.00       | 34.00    | 32.00    |
| PrimeCharco:   |                  | 86 at Q 6 at        | 30 % 00 to 40 % 0011111  | amana de    |          |          |
| 4×20 }   |                  | mers m ers          | Sizes above—\$15 per box   | extra re    | or ever  | y 5 inc  |
| 2X12 Prime Charcon   |                  | 0.75                | An additional to per cen   | C. WILL     | De cha   | rrged    |
| OXIA) Detros Charac  |                  | 8.00                | Glass more than 40 inches  | wide.       | AH SI    | zes at   |
| Prime Charco   |                  | 0.23                | Glass more than 40 inches inches in length, and not m  | aking n     | nore th  | an or    |
| x12, Prime Charcoal  |                  | 8.40                | inches will be charged in u  | tes 24 mm   | ted inc  | Dea D    |
| 216X17, Prime Charcoal   |                  | 6.00 @ 6.25         | Discour  | E. 70.      |          |          |
| 21/2, Prime Charcoal<br>21/2 17, Prime Charcoal<br>21/2 17, Prime Charcoal   |                  | 8.25                |  |             |          |          |
| each additional X add  |                  | 2.00                |  |             |          |          |
|  |                  |                     |  |             |          |          |
| COKE TIN P   | Lak THE          | Ondino              |  |             |          |          |
| ama . Y  | Best.            | Ordinary.           | DUDDED A   | 1 FA        | THE      | 3        |
| X14 }  | 84.75            | 84.25 @ 4.60        | RUBBER &   | IFA         | IHE      | 15       |
| (Med )   |                  |                     | HUDDEH &   | FFU         | 1115     |          |
| X12  | 6.00             | 5.50 @ 5.75         |  |             |          |          |
|  | ATE.             | 0.1                 |  |             |          | •        |
| Prime Char.  | 2d Qual.         | Coke.               | DELT   |             | V III    |          |
| X20 85.50@ 5.75 5  | 3736 66 5.50     | 5.25 @ 5.3736       | ULI  |             |          | -        |
| X30 7.50   |                  | 10.1                | R.F.I  |             | u i      | 7        |
|  |                  |                     |  |             |          |          |

7.50 11.50 11.75 11.00 @ 11.25 10.75@11.00

| Paper   | Stock,            | Ac.         |
|---|-------------------|-------------|
| (Dealers)                                     | Selling Prices    | (cents W %  |
| White Shirt Cuttings. N                       | 0.0               | 756.66      |
| White Shirt Cuttings, N                       | (). 2             | 5 68 55     |
| Mill Assorted Whites                          | O. d              | 516 60 516  |
| Unbleached Muslins                            |                   | 649 60 68   |
| City Whites, No. 1                            | **********        | 481 60 5    |
| New Canton Flannels                           | ***************** | 66 65       |
| New Seconds. light                            |                   | alle co     |
| New Seconds, dark                             |                   | 334 66 33   |
| No. 2 Wnites                                  |                   | 254 60 23   |
| Cotton Canvas                                 |                   | 491 (0 4)   |
| Linen Canvas, No. 1                           |                   | 4 60 40     |
| Seconds, City No. 1                           |                   | 186 60 18   |
| Seconds, City No. 2                           |                   | 134 (0) 134 |
| Colors, per 100 Bs                            |                   | 70 file 12  |
| Mantia Rope                                   | ****** ****       |             |
| Manila Rope<br>Manila Rope, Tarred            |                   | 234 (6) 234 |
| Gunny Bagging. No. 1                          |                   | 216 68 286  |
| Gunny Bagging, No. 3                          |                   | 134 66 2    |
| Kentucky Bagging                              |                   | 166 484     |
| Burlap Bagging, No. 1                         |                   | 216 60 216  |
| Tar Shakings                                  |                   |             |
| Hemp Twine Stock                              |                   | 16 60 486   |
| Hard White Shavings, N                        | (A. V             | A 60 434    |
| Soft White Shavings. No                       |                   | 3 60 354    |
| White Shavings, No. 2, 1                      | wift              | 3 60 374    |
| Mixed Shavings part wi                        | vito              | 216 60 3    |
| Mixed Shavings, part wi<br>Ledger and Writing | 1100              | 36 60 386   |
| Solid Stock                                   |                   | 254 00 3    |
| Solid Stock.<br>Book Stock, No. 1, light      |                   | 146 146     |
| Old Newspapers                                |                   | 114 (0. 184 |
| Pure Manilas                                  |                   | 200 200     |
| Bogus Manilas and Hard                        | Incoppe           | 1 60 156    |
| Commons per 100 lbs                           | A AL COLUMN       | 20 66 80    |
| Binders' Board Cuttings                       |                   | 136.60 136  |
| Straw Board Cuttings                          |                   | 178 09 178  |
| been board Cuttings                           | **********        |             |

# Paints Oils &c.

| No. 28, 26 @ h advance.   | Paints, Oils, &c.   |
|---|---|
| Metal. in width by in. to 14 thinner than No. 28, 50 P D  |   |
| Metal, % in. in width and less, roc F & advance.  | Paints.   |
| Any of the above widths cut to particular lengths, add  |   |
| 20° 30° 30.   | Hlack Lamp, Codeh Painters   \$\Psi\$ 30c     Black Lamp, Ordinary   \$\Psi\$ 6c     Black Ivory Drop, fair   126   156     Black Ivory Drop, best   230     Black Paint, in oil   kegs 8c   asst'd cans, 110     Blue Prussian, fair to best   456   550     Blue Prussian, fair to best, in oil   456   550     Blue Chinese dry   700     Blue Ultramarine   18 66   500     Brown, Sanalah   18 66   500     Blue Chinese dry   18 66   500     Brown, Sanalah   18 66   500     Brown, Sanalah   18 66   500     Blue Chinese dry   18 60     Blue Chinese dry   18 |
| GERMAN SILVER MARKET METAL AND WIRE. Market Metal. Wire   | Black Ivory Drop, fair  |
| ther cent 12 feels to No. 26 8c.52 8c.70  | Black Paint in oil kees See nest'd care ve  |
| 6 " " " ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,   | Blue Prussian, fair to best   |
| 10  | Blue Prussian, fair to best, in oil45 @ 550   |
| 16  | Blue Chinese dry700   |
| German Silver Sheets over 12in, wide and weighing   | Brown Spanish   |
| twops than to be to be.   | Brown, Van Dyke   |
| Advance 2c, for each additional men in width above  | Green, Chrome15 @ 230   |
| 12 in. and 2c. W 25 on each No. thinner than Nos. 26 to   | Green, Chrome, in oil   |
| 36, inclusive. All German Silver thinner that No. 36 is Platers', at  | Green Paris in oil good see; best see   |
| per 27 % additional.  | Iron Paint, Bright Red # 10 2/40  |
| German Silver Scrap, one-half less than net price of<br>izin. Market Metal. German Silver Turnings. Filings | Iron Paint, Brown # 1590  |
| and Chips, half the price of Scrap.   | Iron Paint, Purple  |
| REASS AND COPPER WIRE.  | Blue Ultramarine  |
| Gild'g and  | Iron Paint, Ground in oil, Brown 9 % 4560   |
| High Brass. Low Brass. Copper.  | Iron Paint, Ground in oil, Purple P b 6 c   |
| No. c to 2  | Mineral Paints  |
|   | Red Lead, American 7140   |
| No.23   | Mineral Paints   2 d 4c   |
| No.21,  | Red Venetian, in oil asst'd cans, 11c; kegs, &c   |
| No.26   | Rose Pink   |
| No.27   | Sienna, American, Raw   |
| No.28   | Sienna, Burnt45ge   |
| No.29   | Sienna, Burnt, in oil   |
| No.31   | Umber, Burnt  |
| No. 97  | Umber, Burnt, in oil  |
| N0.33   | Comber Raw in Oil   0.00   1    |
| Spring Wire se b B advance  | Varnitton Chinese   |
| Flat. Square and Half-Round Wire 50 ₽ m advance   | Vermilion, English  |
| par Rentret Wire.   | Vermilion, American, Common150  |
| Fancy Wire not less than roc ≥ B advance on Round<br>Wire.  | White Lead, American, pure dry  |
| Brass Rods, No. 8 and larger, not less than 2 feet  | White Paris English prime in this yes the   |
| Sensething offer  | Yellow Ochre, French  |
| Wire straightened and cut smaller than No. 8 and  | Yellow Ochre, Freuch, in oil. asst'd cans, me; kegs, 80   |
| not less than a feet lengths, 49c. Wire and finds less than a feet lengths, special rates.                  | White Lead, American, Common. White Lead, American, pure in oil. 76 74c White Lead, American, pure in oil. 76 74c White Paris, English, prime. in bilis, 2 66 2xc Yellow Ochre, French, prime. in casks, 11c; kegs, 86 Yellow Ochre, Vermont. in casks, 14c Yellow Ochre, Vermont. 11 casks, 14c  |
| Twelve cents per B extra for spooling on 1 B spools   | Yellow Chrome, in oil   |
| 0 No. 30.   | Yellow Chrome. 17 66 29c Yellow Chrome, in oil. 14 66 18 66 25c Zine White, American No. 1, dry 56 65 56 Zine White, American No. 1, in oil 9c Zine White, French (Paris) dry 8 66 10c Zine White, French, in oil 10 68 11c   |
| Brass Pail Eurs   | Zine White, American No. 1, in oil  |
| Brass Door Rall 48  | Zine White, French, in oil  |
| BURAP - Set.  |   |
| High Brass Scrap  | Linseed Raw in casks and bbis   gal sq 6 cg   |
| Catheling   | Bleached Whate  |
| Tornton Village and Chips half the price of Scrap.  | Bleached Sperm p gal.#1.30  |
| Terms-Net cash. Interest to be added after thirty   | Bleached Elephant   |
| days. Traise-dis. 25 %. P. R.   | Prime Lard 81.02  |
| Ti niso —dis. 25 %.   No ze inclusive above ¼ in. to 3 in   | No. 1 Extra   |
|   | West Virginia   |
| Nos. (1, 2), 2), 1wa cents advance on Lis. for each   | Miners' Oil 400   |
| Nos about, four cent deance on List for each  | Fish Oil, pressed   |
| Number.   | Neatsfoot   |
| Above No. A. special rates.   | Franks Cylinder (III  |
| Plain, q tuch   | West Virginia   120 @ 150   150   150   150   151   151   151   152   152   151       |
|   | Engine 500  |
| All Man frei Brawn Tubes, a cents advance on List   | Sundries.   |
|   | Mineral Wool extra  |
| Meglish, Scotch and Extra Patterns Fancy Tubing   | Asphaltum Cubansc @ 8c  |
| To No. 20   | Asphaitum Egyptian  |
| ubingsawed or Cut z to z feet long, z cents ad-   | Chair   |
| Add two cent. Life onch.  | Chalk, Block.   |
| unders Per  | Machinery   |
|   |   |

| Gum Shellac, English  |           |          |           | 40        |
|---|-----------|----------|-----------|-----------|
| Gum Shellac, English, darl  | K         |          |           | 35        |
| Litharge  |           |          |           | 779       |
| Pumice Stone, selected Lui  | mps       |          |           | 400 0     |
| Pumice Stone, Powdered  |           |          |           | 294       |
| Pine Tar, bbis  |           |          |           |           |
| Pitch   |           |          | **- \$2.2 | 0 @ 2.2   |
| Putty, in bladders  |           | ******   | 8×11 6-   | 3         |
| Putty, in bulk  |           |          |           | 250       |
| Putty, in bulk<br>Rosin—Common and Good                               | -Strai    | ned      |           | 82.1      |
| E&F   | ******    |          | ******    | \$2.2     |
| G & H   |           |          | \$2.80    | @ \$2.9   |
| 1 & K   |           | *******  | 83.10     | (0) 83.3  |
| M & N   |           |          | 83.80     | (6) \$4.1 |
| Spirits Turpentine  |           |          | 55360     | (G) 505G  |
| Whiting Spanish   |           | ******   |           | 940       |
| Waste, No. 1 Cop  |           |          |           | 100       |
| Waste, No. 1 Cop<br>Waste, No. 1 White Machine                        |           | ******   |           | IO        |
| Waste, No. 2 White Machine  |           | *******  |           | 9564      |
| Waste, No. 1 Colored  |           |          |           | 70        |
| Waste, No. 2 Colored  |           |          |           | 616       |
| Waste, No. 1 Colored<br>Waste, No. 2 Colored<br>Waste, Washed Machine |           |          |           |           |
|   |           |          |           |           |
| fila  |           |          |           |           |
| Prices current pe   |           |          | eet.      |           |
| New list, Jan   | uary 1    | 7, 1882, |           |           |
| Single  | Thick.    |          |           |           |
| SIZES,  | zst.      | 2d.      | 3d.       | 4th.      |
| 1 - 7.  |           | -        | -         | * 0 -     |
| 6 x 8 to 10 x 15  | \$10.00   | 8 9.25   | \$ 9.00   | \$ 8.50   |
| 11 X 14 to 16 X 24  | 11.50     | 10.75    | 10,25     | 9.50      |
| 18 X 22 to 20 X 30,   | 14.75     | 13.75    | 12.50     | 11.50     |
| 15 X 36 to 24 X 30  | 16,50     | 14.75    | 13.00     | 1         |
| 96 X 38 to 24 X 36<br>26 X 36 to 26 X 44                              | 17.50     | 16.00    | 14.00     |           |
| 26 X 36 CO 20 X 44  | 18.75     | 17.25    | 14.50     |           |
| 26 X 46 to 30 X 50  | 20,50     | 19.25    | 16.50     |           |
| 10 X 52 to 30 X 54  | 22.75     | 21.00    | 18,00     |           |
| 30 x 56 to 34 x 5   | 24.00     | 22.00    | 19.75     |           |
| 14 x 58 to 34 x 60  | 25.25     | 23.75    | 21.50     |           |
| 6 x 60 to 40 x 60   | 28,50     | 26,00    | 23-75     | 1         |
| Double  | Thick.    |          |           |           |
| SIZES.  | 186.      | ad.      | ad.       | ath       |
| PERSON.   | 2041      |          | - Street  | 40.00     |
| 6 x 8 to 10 x 15  | \$13.00   | \$12.25  | \$11.75   | SILOC     |
| II X 14 to 16 X 24  | 15.75     | 14.75    | 14.00     |           |
| 8 x 22 to 20 x 30   | 20.00     | 18.50    | 17.00     |           |
| 15 X 36 to 24 X 30  | 22,00     | 30.00    | 17.75     |           |
| 16 X 28 to 24 X 36  | 24.00     | 22,50    | 10.25     |           |
| 6 x 36 to 26 x 44   | 25.00     | 23.50    | 20.00     |           |
| 6 x 46 to 30 x 50   | 27.00     | 25.25    | 22,00     |           |
| p X 52 to 30 X 54   | 30.00     | 28.00    | 34.00     |           |
|   | 31.50     | 20.00    | 26.25     |           |
| o x 56 to 34 x 56   |           | 31.50    | 28.50     |           |
| 4 x 58 to 34 x 60   |           | 34.00    | 32.00     |           |
| 6 x 60 to 10 x 60   | 37.00     |          |           |           |
| Nizes above-815 per box e   | xtra f    | or ever  | y sinch   | ing.      |
| An additional to per cent   | . Will    | All of   | riged I   | OF MIL    |
| lass more than 40 inches  | WIGE.     | AH HA    | are a u   | 146 42    |
| nches in length, and not ma   | ARCHINE E | nore: un | an or u   | mntea     |
| nches will be charged in the  | 2 24 UH   | red me   | nes pri   | K.K.      |
| Discount  | 10.       |          |           |           |
|   | _         |          | _         |           |
|   |           |          |           |           |
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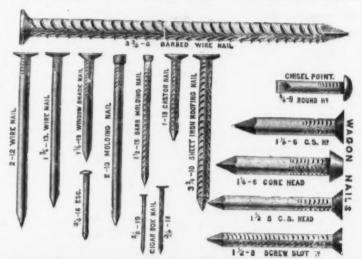
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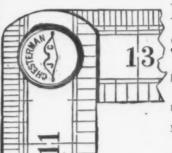
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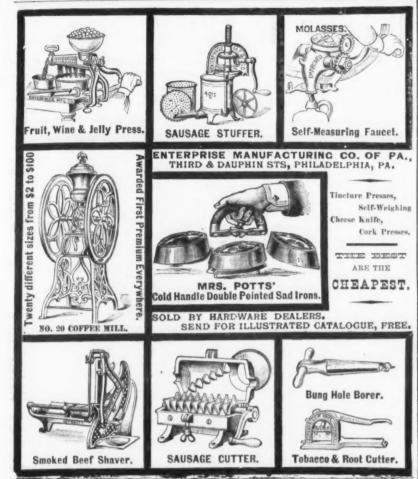
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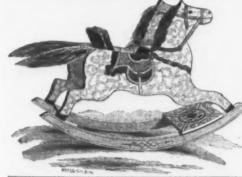
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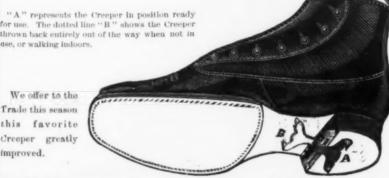
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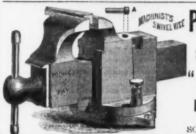
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| 2  | 110  | ***   |
|--|--|---|
| HARDWAR  | E.   | W   |
| A uvils.  Fagle Anvils American Wright's Armitage's Mouse Hole Trenton Wikinson's Anvil Vise and Drill. Millers Falis Co., \$28.00 Cheney Anvil and Vise Augers and Bits. Conn Valley Mig. Co. Douglass Mig. Co. Douglass Mig. Co. Douglass Mig. Co. Douglass Mig. Co.   | 0 toc-dis 2<br>  | Cas<br>Cas<br>Cas<br>Cas<br>Cas<br>Fas<br>Fas<br>Loc<br>Loc<br>Loc<br>Loc<br>Loc<br>Loc<br>Loc<br>Loc<br>Loc<br>Loc   |
| Augers and Bits.  Onn Valley Mrg. Co. Donn Valley Mrg. Co. Beecher French, Swift & Co. Griswold Nobles Mrg. Co. Beecher French, Swift & Co. Griswold Nobles Mrg. Co. Beecher French, Swift & Co. Griswold Nobles Mrg. Co. Beecher French, Swift & Co. Donn Co. Beecher French, Swift & Co. Griswold Head Levis Patent Single Twist. Russell Jennings' Augers. Housell Jennings' Augers. Holing Honings' Augers. Holing Honings' Car and Machine Bits, chine and Millwrights' Augers. Holing Jennings Bits. Holings' Elits. Holings' Elits. Holings' Elits. Holings' Elits. Holings' Elits. Holings' Elits. Holings' Elits, Frenches' Expansive Bits, Frenches' Expansive Bits, Parmelee's. Expansive Bits, Parmelee's. Expansive Bits, Parmelee's. Expansive Bits. Holings, Vest. Holings, Ve   | dis 40-810 from list. Jan. 7, 188  dis 40-810 dis 40-910 dis 40-91 | Faso. Faso. Loo Table Institution Faso. Loo Table Institution Faso. Loo Faso. |
| Hollow Augers, Sonney's anjust. & d.2. sae Hollow Augers, Ives' Expansive, each \$4.50 Hollow Augers. Irves' Expansive, each \$4.50 Hollow Augers. Universal Expansive, each \$4.50 Hollow Augers. Universal Expansive, each \$4.50 Hollow Augers. Universal Expansive, each \$4.50 Hollow   | - dis 25%10 dis 30%10 dis 30%10 dis 30%10 dis 25 dis 25 dis 26 dis 26 dis 26 dis 26 dis 30%10 dis 50 dis 30%10 dis 50 dis 25 dis 40%10 dis 50 dis 25 dis 40%10 dis 50 dis 25 dis 26 dis  | Blime Bline |
| Patent Sewing, Long  | dis 40&10  | Ca  |
| Patent Feg, Leather Top. \$12.0 % gross- Awis. Shudered Feg. \$2.0 gross \$1.70- Awis. Shouldered Feg. \$2.70 gross \$1.70- Awis. Shouldered Feg. \$2.70 gross \$2.6- Awis. Shouldered Brad. \$2.70 % gross \$2.70- Awis. Handled Brad. \$2.70 % gross- Awis. Handled Brad. \$2.70 % gross- Awis. Handled Scratch. \$2.70 % gross- Awis. Handled Scratch. \$2.00 % gross- Brad Sets. Aiken \$2.00 % gross- Brad Sets. Aiken \$2.00 % gross- Brad Sets.  | -dis 25&10 9 -dis 35&10 9 dis 30&10 9 dis 30&10 9  | Eure<br>Sardi<br>Star.<br>Sprag<br>No.<br>Unive   |
| Single Bit, 4½ to 5½ and under . \$\varphi\$ single Bit, 4½ to 6 and over . \$\varphi\$ of \$\varphi\$ and under . \$\varphi\$ of \$\varphi\$ and under . \$\varphi\$ do \$\varphi\$ and under . \$\varphi\$ do \$\varphi\$ and over . \$\varphi\$ do \$\varphi\$ and \$\  | doz 9.00 net<br>loz \$9.50 net<br>loz advance<br>loz advance<br>loz advance<br>\$ 5 60   | Hick<br>F. I<br>E. I<br>E. I  |
| Axles. Standard list  Bag Holders. Sprengle's Patent, \$\pi\$ dos \$18   | dis 45 %   | U. M.<br>G. D.<br>Doub<br>Colt's  |
| Bainness. Bells. Bells. Bells. Bells. Band, Light Brass. Hand, Extra Heavy. Hand, White Metal. Hand, Globe (Cone's Paitent). Gong, Abbe's. Gong, Yankee. Gong, Sarton's Crank, Argior's. Crank, Argior's. Crank, Argior's. Crank, Argior's. Crank, Econe's. Crank, Sargent's. Sargent's. Sargent's. Lever, Taylor's Stonned or Plated. Lever, Taylor's Japanned. Lever, Taylor's Japanned. Lever, Reading. dis Pull, Rook's. di Lever, Reading. dis Pull, Rook's. di Pull, Western. Cow. Common Wrought. Cow. Western. Cow. Western. Cow. Western. Cow. Western. Cow. Kentucky "star". Sargent's list. Cow. Lower Sargent's list. Cow. Looke's Genuine Kentucky. new list. Not. 0 1 184 2 3 4 5 6 H §11.20 10.0 9.00 5.00 7.00 5.00 9.00 2.50 5. Cow. Texas "Star".  | dis 6x8110 9   | E. B. Muske<br>Muske<br>Cant<br>Cotto<br>Wool<br>Cast :<br>Cast :<br>Bulia<br>Cast :<br>Plate<br>Deep<br>Marti<br>Cai<br>Humu<br>Sarge  |
| Pull, Western. Cail. Cow. Common Wrought. Cow. Western, Sargent's list. Cow. Kentucky Sargent's list. Cow. Lodge's Genuine Kentucky, new list. Nos. o. 1 154 2 3 4 5 6 H. \$1.200 10.00 9.00 8.00 7.00 5.00 3.60 2.50 5. Cow. Texas "Star".  | dis 25&10 %dis 25 %dis 25 % .dis 55&10 % .dis 25&10 % .dis 25&10 % .dis 25&10 % .dis 55&10 %dis 40 %   | Trace<br>Trace<br>Trace<br>Germ<br>Cove<br>Oneid<br>Galva<br>Jack<br>Chi  |
| Hellows. Blacksmiths' Common. Blacksmiths' Extra Pittsburgh Pattern. Moldors'. Hand Bellows.  Betting Rubber. Belting and Packing Co.  | dis 50 %   | White<br>White<br>Chi<br>Nos. c   |
| Bit Holders. Extension, Barber's \$\forall \text{doz} \\$is.co- Extension, Ives' \$\to \text{doz} \\$is.co- Extension, Ives' \$\to \text{doz} \\$is. Dingonal \$\to \text{doz} \\$a. Angular \$\to \text{doz} \\$a. Blind A djusters.—Domestic. \$\tilde{\text{doz}} \\$a. Excelsion \$\to \text{doz} \\$a. Blind Fasteners.   | 50#10#: %  | Socke<br>Socke<br>Socke<br>Socke<br>Socke<br>Socke<br>Socke<br>Socke  |
| Bilind Fasteners.   \$\psi\$ doz pairs, \$\psi\$  \text{Van Sand's \circ Pattern}  \psi\$, \$\psi\$ yan Sand's \circ Pattern  \psi\$, \$\psi\$, \$\psi\$ | e gro. net gross. net  | Socke<br>Socke<br>Tange<br>Tange<br>Tange<br>Tange  |
| Biind Staples, Bar bed, ½ in. and larger Bar bed ½ in  |  | Iron, |
| Penfield Block Co. J. R. and L. Strap'd.  Penfield Block Co., W. I. C. bushed.  Penfield Block Co., W. I. all steel roll'r.  Penfield Block Co., L. & I Sheaves.  S anley Rule & Level Co.'s.  Bolfs.  ast I on Barrel Shutter, &c.  |  | Iron, Iron, Iron, Cili Norwa Super  |
| Bols. Cast I ou Barrel Shutter, &c. Cast I ron Chain (Sargent's list) (ver Patrent be or Bolts. Wrought Barrel. Wrought Square. Wrought Shutter, all Iron, stanley's list. Wrought Shutter, Brass Knob, Stanley's list. Wrought Shutter, Sargent's list. Wrought Shutter, Sargent's list. Wrought Shutter, Sargent's list. Wrought Sunk Flush, Sargent's diwrought Sunk Flush, Stanley's d'arriage and Thre. Common Stanley's Carriage and Thre. Philadelphia heattern. Duion Carriage. R. B. & W. Carriage old list. lire. Am. Scr. W. O. S. Phila. lire. A. B. S. W. Carriage old list. live. B. S. W  | dis 75 %   | Coc<br>Cacking Globe,<br>Plain Ale an<br>Coff Board<br>Wilson<br>Selsor<br>Ameri<br>Frenci<br>The "S<br>Wobb"   |
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| Hoxes.<br>nterchangeable Shelf Boxes   | dis 20 %   | Cori<br>Clough<br>Cori<br>Wadsv<br>Cret   |
| Braces  J. S. Enckus Vision Mfg. Co Jarber's  poffard's Patent  ves Fat nt Braces  common Sali (American)  midon's  maker's Imp'd  mpire  surfaio Sali  Brackets.  |  | Fire his Hotchk Lawren  |
| Britan de la   |  | Curl<br>Meride<br>Am. Mi<br>Humas   |
| Humason, Beckley & Co. s.  | 110 55 R 5 S   | Naugat  |

|                | M IOIK MIIOI   | U                                       |
|----------------|--|---|
|                | Butta, Wrought Brass. dis 65&r Cast Brass, Tiebout' dis 33 Cast Brass, Copin's Fast Junt dis 23 Cast Brass, Copin's Fast Junt dis 20 Cast Brass, Coose Joint dis 10&r Cast Brass, Coose Joint dis 10&r Cast Brass, Loose Joint dis 20 Cast Brass, Loose  | 0000                                    |
| T WE WILL      | Cast Brass, Loose Joint. dis ro&r Fast Joint, Narrow dis 45&r Fast Joint, Eroad dis 4&c. dis  | 0000                                    |
| 6              | C Loose Joint, Japanned dis 55&r<br>Loose Joint, Japanned with ACYFDS dis 55&r<br>Parliament Butts dis 54&r  | 2 |
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| 八元 五元          | Gem Spring Hinges  | N. W. W.                                |
| 汽发发发           | Looe Pin. Light.  Spring Hinges:  Spring Hinges:  Union Spring Spring Japanned.  Union Spring Spring, Japanned.  Union Spring Spring, Japanned.  Union Spring Hinge Co. 18.  American Spring Hinge Co. 18.  Gem Spring Hinge Co. 18.  Union Spring Hinge Co. 18.  Union Spring Hinge Co. 18.  Union Spring Hinge Co. 18.  Miss 25.  Merican Spring Hinge Co. 18.  Junion Mfg. Co. 18.  Junion Mfg. Co. 18.  Billing Butts Parker dis 18.  Billind Butts, Palmer dis 4.8  Junion Mfg. Co. 18.  Junion Mfg. Co   | %                                       |
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| 2000           | Blind Butts, Lull & Porter   | N. N. N.                                |
| 100            | Bilnd Butts, Shepard's "Noiseless," Nos. 50 & 60.  dis Bilnd Butts, Lull & Porter.  dis 70.25 to dis 70.25 to dis 70.25 to dis 70.25 to Bilnd Butts, Nicholson.  dis 40.25 to Rind Butts, Huffer Bilnd Butts, Clark's, Nos. 1, 3, 5, 40, 45 and 50. d's Bilnd Butts, Sargent's, Nos. 1, 5.  dis Bilnd Butts, Sargent's, No. 1, 2.  dis Bilnd Butts, Rargent's, No. 1, 2.  dis Bilnd Butts, Rargent's, No. 1, 2.  dis Bilnd Butts, Rargent's, No. 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,  | 1                                       |
|                | Clark's Improved Stutter Finge, 256, 3, 256, 3, 3616 Sokro, 4016 S   | 8 3                                     |
|                | Sargent & Co.'s  | % 1<br>% 1                              |
|                | Beatty's   | 2 2                                     |
| 2 10 10        | Can Openera.  Messenger's Comet  | SHAT                                    |
|                | #10.60 10.00 21.50 24.00 27.00 30.00 33.50 30 50 Can Openers.  (Messenger's Comet  | 3                                       |
|                | Eurews.  | S S                                     |
|                | "Worlds Best" # gross, No. 1. \$12.00; No. 2, \$24.00;<br>No. 2, \$26.00   | H                                       |
|                | Domestic   | S                                       |
|                | F. L. Waterproof, 1-10'8   | 8                                       |
|                | Musket Caps, 1-10's  | B                                       |
|                | U. M. C., Double W. Proof. \$1.40 dis 10&5 \$  U. M. C., Double W. Proof. \$1.40 dis 10 \$  Double Waterproof, in 1-10's \$1.40 dis 10 \$  | I B                                     |
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|                | Musket, in 1-10's  | FWA                                     |
|                | Cards.—Horse and Curry.new list, July, '81, dis 10 % Cotton  | J. 8                                    |
| 1              | Daily ersel  | Se                                      |
|                | Casters.         dis 36210 %           Bed.         dis 36210 %           Plate and Shallow Socket.         dis 36210 %           Deep Socket.         dis 26210 %           Martin's Patent (Phomix)         dis 3316 %   | E                                       |
| -              | Cattle Leaders. dis 60&10 % Sargent's dis 60&10 %  | Je<br>B                                 |
| -              | Chain.  Trace, 094-10-2.  Trace, 094-10-3.  P pair 702  Trace, 094-10-3.  P pair 302  German Halter Chain, list of Dec. 31. 1881.  Gla 505  German Halter Chain, list of Dec. 31. 1881.  Gla 505  Covert Halter, Hitching and Breast.  Gla 505  Covert Halter, Hitching and Breast.  Gla 505  Galvanized Pump Chain.  Jack Chain, 100.  Jack Chain, 100.  Jack Chain, 100.  Gla 505:05  Chaik.  Gla 505:05  Chaik.   | F<br>M<br>H                             |
| -              | German Halter Chain, list of Dec. 31. 1881dis 50 % German Coll, list of Dec. 31. 1881dis 50 % Covert Halter, Hitching and Breastdis 50 %   | HNNU                                    |
|                | Oneida Halter Chain (old 18t).       0.08 45 %         Galvanized Pump Chain.       \$\psi\$ 20 ½c net         Jack Chain, Iron.   | K                                       |
|                | White.         P gross foc net           Red.         P gross \$co net           White Crayons         P gross \$co net  | Ci                                      |
|                | White Crayons  | Ai<br>De<br>Ge                          |
|                | NOS. O. \$6.00; 1. \$6.00; 2. \$7,00; 3. \$7.50. \$\Psi\$ gross cls 20 \$\times\$\$ (1 \text{line lis}\$ \text{Socket Framing, Crossman.} dis 6,\$\$\psi\$ \$50 \text{cls framing, Arlington Edge Tool Co. \text{dis 6,\$\$\psi\$ \$50 \text{cls framing, Barriers 1670 list, dis 224 \$50 \text{cls first, dis 5,\$\$\text{cls first, dis 5,\$\$\text{cls first, dis 5,\$\$\text{cls first, dis 6,\$\$\text{cls first, dis 224 \$50 \text{cls first, dis 6,\$\$\text{cls first, dis 6,\$\text{cls first, dis 6,\$\t | Sh                                      |
|                | Socket Framing, Merrill  | Bu                                      |
|                | Socket Firmers, Crossman<br>Socket Firmers, Arlivaton Edge Tool Codis 65&to 4<br>Socket Firmers, Buck Bros   | Pa                                      |
|                | Socket Firmers, Witherby 1001 CO   | PI                                      |
| 1              | Tanged Firmers, Butcher's  | Bu                                      |
|                | ('lamps. Iron, Providence Tool Co.'s Wrt. Iron   | 6                                       |
|                | Clamps. Iron, Providence Tool Co.'s Wrt. Iron. Iron, Providence Tool Co.'s Wrt. Iron. Iron, Adjustable, Gray's. Iron, Adjustable, Isombert's. Iron, Adjustable, Sn. W's. Iron, Adjustable, Sn. W's. Iron, Adjustable, Hammer's. Iron, Adjustable, Stearns'. Iron, Capting Baskers'. Iron, Carriage askers', Sargent's. Iron, Carriage askers', Sargent's. Isomber Clamps. Isomber Carriage askers', Sargent's. Isomber Carriage askers', Sargent's. Isomber Carriage askers'. Isomber Carriage askers'.  | WW                                      |
|                | Iron Carriage makers', Sargent's   disockro x   Citpes Axle   Norway or Best   disockr x   Superior   dis 4685 x   Citpes Axle   disockr x   Citpes Axle   disockr x   Citpes   disockr x   | N8                                      |
| -              | Cont Hode.  Griffiths'   | Do Do                                   |
| 100            | Const fides. dis 33% % Cackeyes. dis 55% % Cackeyes. dis 55% % Cackeyes. dis 55% % Cackeyes. dis 55% % Cackeyes. dis 45% % Cackeyes.   | Do                                      |
| -              | Ale and Beer, new inst, say 10, 1000 dis 40 %  Coffee Mills.  Coard and Box. dis 40 %  Wilson's. dis 45 %  Selson's : at. \$0.50, \$10.10, dis 45 %  | Tin<br>Fa                               |
| 20 March 200   | Selsor's : at.     \$9.50, \$10.50, dls 25 \$4       American Enterprise Mfg. Co.     dfs 25 \$7       French Steel.     dfs 25 \$7       Fhe "Swift" (Lane Bros.).     dfs 25 \$1   | Sal                                     |
| 1              | Combined Dinner Pail and Lautern.  er doz Sico. dis 30 %  compinsses, Dividers, &c.  | טטטט.                                   |
| 5              | Jompasses  | D.                                      |
| at her own own | allpers. dls 5 5 Dividers. dls 5 5 Ber is & 'all Co.'s Dividers. dls 66& 5 Ber is & 'call Co.'s Compasses and Calipers. dls 66& 5 Bernis & Call Co.'s Wing & Inside or outside. dls 66& 5 Bernis & Call Co. 's Ouble. dls 65 Bernis & Call Co. 's Cali's Patent Inside). dls 65 Bernis & Call Co. 's (Cali's Patent Inside). dls 65 Bernis & Call Co. 's (Cali's Patent Inside). dls 65 Bernis & Call Co.'s (Cali's Patent Ins   | H                                       |
| -              | Hillanda Notant dia as g   | Ha<br>Hu<br>Ve                          |
|                | Coopers' Tools.  | Ma<br>Ne<br>Wa                          |
| 0              | Barton S. L. S.  | Kil<br>Vel<br>Wi                        |
| CI             | ron, Steel Points W b 64c  | Pro<br>Pro<br>To                        |
| ć              | urling Tongs # doz 83.65, dis to %   | NP                                      |
| FEE            | Ti F's, new list   018 50 %   10tch iss, Noveity, new list, July, 1880   018 25 %   10tch kiss, Excir. Supr. Champion   018 25 %   02 %   02 %   03  | Rog<br>Bro<br>Jap                       |
| 4 10           | Ilvered Glass  | Bar                                     |
| NA             | Cuitery.   | Fiu<br>Life<br>Sav<br>Boy               |
| H              | Jaugatuck Cutlery Co   | Hai                                     |

| E  | esale Prices,  |  |
|--|--|--|
| *********  | Dog Collars.   dis 2   Leather   dis 3   Leather   dis 4   Brass   dis 4   Celluioid   dis 4   Door Springs   dis 4   Collars   dis 6   Collars   dis 1  | 59   |
| 克克克克克 生果果果果果果  | Warner's   dis 15&r  | T T WEEKEN   |
| XXXXXXXXXXX  | Hercules   | IN WHENEXER  |
| × × × × × × × × × × × × × × × × × × ×  | Blacksmiths Self-Feeding each, \$2.50, dis 20 Blacksmiths Self-Feeding each, \$7.50, dis 20 Blacksmiths Self-Feeding each, \$7.50, dis 20 Breast, F. S. & W. dis 200.20 Breast, Hotchkins dis 200.20 Breast, Hillers Falls each, \$3.00, dis 25 Breast, Bartholome W's each, \$2.00, dis 25 Breast, Bartholome Whitey's each each each each each each each each  | THE THE PERSON NAMED IN TH |
|  | Drill Chucks.   dis 30   Morse's Beach Patent   dis 30   Morse's Adjustable   each, \$10.00, dis 30   Danbury   each, \$20.00, dis 30   Danbury   each, \$8.00, dis 30   Danbury   each, \$8.00, dis 30   Morroe's   dos. \$2.00, dis 20   Morroe's   each \$2.00, dis 20   Mational   each \$2.00, dis 20   Mational   each \$2.00, dis 20   Each \$2.00, dis 2 | 5555555  |
|  | Hill E. Bucketta.  Will E. Bucketta.  Will E. Bucketta, light, 3½ to 10 in (Duc's Improved),  Will E. Buckets, heavy, 5 to 10 in. (Duc's Improved),  Will E. Suckets, heavy, 5 to 10 in. (Duc's Improved),  Will E. Suckets, heavy, 5 to 10 in. (Duc's Improved),  Will E. Suckets, heavy, 5 to 10 in. (Duc's Improved),  Will E. Suckets, heavy, 5 to 10 in. (Duc's Improved),  Will E. Suckets, heavy, 5 to 10 in. (Duc's Improved),  Will E. Suckets, heavy, 5 to 10 in. (Duc's Improved),  E. Suckette, heavy, 5 to 10 in. (Duc's Improved),  Suckette, heavy, 10 in. (Duc's Improved),  Suckette, 10 in. (Duc's Improved),  Sucke   | 2 22 202 2   |
| III THE SERVICE SERVIC | Excutcheon Pins. dis 50 % Brass. dis 50 % Excutcheons.   |  |
| HULLING  | Elies  |  |
| EFECCADGC S CCB  | Nion File Co.   dis 40   |  |
| HATE A   | Fly Traps. # dos, \$3, net Forks. # dos, \$3, net Forks. # dos, \$4, net Forks. # dis to \$5 ar, Manure and Spading. # dis to \$5 art dis 4, Kogers & Bro. # dis 40x10x5. # dis   | 1  |
| NIN  | Marking Stanley's   dis 50&10 %   arking Chapin's   dis 5&10 %   fire   dis 5&10 %   fire   dis 10&10 %   dis 20 %   di   | 27 27 27 27 27 27 27 27 27 27 27 27 27 2   |
| TE DODD TE   | Tire, Wheeler, staddeh & Co   State  | A OH   |
| D.D.D.D.D.D.   | M. C. B. E., 11 Up. \$2.00<br>M. C. B. E., 9&10 2,30<br>M. C. B. E., 7&8. 2,50<br>M. C. P. E., 11 Up. 3,10<br>M. C. P. E., 9&10 4,00   | E AAAMHT CBH   |
| I CHERVE   | True and Cattle Ties, Covert's.  | MWW SHABABADDDD  |
| Pr   | ovidence Tool Co., Hand Cuffa, \$1.50 ♥ dos.dls 10 ₹ ovidence Tool Co., Leg Irons, \$2.50 ♥ dos. dls 10 \$ wer's   | T NMHPHEYO   |
| Bu   | p'd Store Door Hindies—Nuts, \$1.25; Flate, \$2.00, io Flate, \$1.10   | Pic  |

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|--|--|---|--|---|
| Hickory Firit Hickory Firit Hickory Firit Apple Firms Apple Firms Socket Firms File, assorted Auger, large Fatent Auger Patent Auger Patent Auger Patent Auger Patent Auger Hangers, Barn Door, No Climax (Anti Challenge. "Champion Sterling Impi Cheritree Kidder"s. "Champion Cheritree Kidder"s. "Champion Cheritree Kidder"s. "Lary's Patent Auchor (T. & Henness Auchor (T. & Henness Kidder"s. "Loud's, list of Fitch's (Brist Hotchkiss". Andrews' Sargent's. German, low German, Sarg Covert. Covered Sprit Hatchets, Isaiah Blood. Shingling, No Claw, Bunt's. "Summarian Claw." "Lathing. "No Claw, Bunt's." "Rethets.  | d patterns.  we England Friction).  Medina Mi roved (Anti-  in aps. S. Mig. Co.).  st of 1-6 chas i-6 change i   | g, Co. Friction).  4 in., \$12; 9 in., \$12; | dis dis dis dis dis dis 5 in., \$15; dis 5 in., \$45; dis 6 in., \$10; dis   | 60&10 % dis 50 % 50&10 % dis 40 % dis 60 % 55&10 % 50&10 % dis 60 % 55&10 % 50&10 % dis 50 % 50&10 % dis 50 % dis   |
| Bunt's  Bunt's  Claw'  Lathing  Lathing  Shingling  Lathing  Lathing  Claw  Yerkes & Plum  Shingling  Claw  Lathing  Lathing  Simmons  Simmons  Simmons  Lathing  Lathing  Lathing  Lathing  Lathing  Lathing  Lathing  Broad  Broad  Broad  Claw  Shingling  Claw  Lathing  Lathing  Kathing  Shingling  Claw  Kathing  Lath  Kathing  Kathing  Lath  Kathing   | OB. 12 3<br>OB. 12 3<br>OB. 12 3<br>OB. 12 3<br>OB. 12 3<br>OB. 12 2<br>OB. 01 2 3<br>OB. 12 | # dos   | \$.00 \$8.50  \$.00 \$6.50  \$.00 \$6.50  \$.00 \$6.50  \$.17 \$6.50  \$.10 \$6.50  \$.10 \$6.50  \$.10 \$6.50  \$.10 \$6.50  \$.10 \$6.50  \$.10 \$ | 9.25 9.00 118 25 \$ 89.00 10.00 9.00 10.00 9.25 8.50 8.50 118 20 \$ 89.00 118 20 \$ 80.00 118 20 \$ 80.00 118 20 \$ 80.00 118 20 \$ 80.00 118 20 \$ 80.00 118 20 \$ 80.00 118 20 \$ 80.00 118 20 \$ 80.00 118 20 \$ 80.00 118 20 \$ 80.00 118 20 \$ 80.00 118 20 \$ 80.00 118 20 \$ |
| Gate, Western Gate, N. E. Regard, Western Gate, N. E. Regard, Christopher Gate, Christopher Gate, Christopher Gate, Seymour Gate, Shepard Hoolied Raised Plate Hinges "Providence Hinges" Screw Hook as Strap.  Heavy Welder Gate Gate Gate Gate Gate Gate Gate Gate   | rersible Nos. 12 3. tes ic. Sense. 11 ges. 11 ges. 11 4 to 36 1 Hook \$1. 14 to 36 1 Hook \$1.   | ♥ doz \$6.  | 24, dis 55&: 13, dis 55&: 13, dis 55&: 13, dis 55&: 15, dis 55&: 15, dis 65   28 \$2.5, dis 65   21 \$2.5, dis 65   22 \$2.5, dis 65   23 \$2.5, dis 65   24 \$2.5, dis 65   25 \$2.5, dis 65    25 \$2.5, dis 65   25 \$2.5, dis 65    25 \$2.5, dis 65   25 \$2.5, dis 65    25 \$   | SCHON SHOP SHOP SHOP SHOP SHOP SHOP SHOP SHOP   |
| Socket  Grub.  Plantere' scovill Pattern scovill Pattern scovill Pattern scovill Pattern scovill Pattern scovill Pattern thick's Pat Soil Brid Cage, Sea Cotton Brid Cage, Sea Cotton Patente Cotton Patente Cotton Patente Cotton Patente Cotton Chumas Beat  Cotton Since Cotton  | Handled d C. S. Plant d C. S. Scov e, Planters' e, Scovill Ps ent's list ting  | ers'.ill Pattern.attern.  | di d   | 8 40 % TE 8 30 %  |
| wheel and frage Wrought Staple Wrought Staple Wrought Staple Wrie Screw Hoo Frass and Bush Miffatree—Pa dooks and Eyes Horse Naii Lusable: Nos. Piain, # D. Linton, Plain. Linton, Plain. Linton, Fin, # Seex. # D. Tutnam "Julcan, " Linton, " Linton | s and Hooks<br>s, Stanley's<br>oks and Eyes<br>tent  | s and Staple list.  Iron.  8 9 1 24c 23c 22-24c 24c 23c 22-24c 24c 23c 22-24c 24c 23c 22-24c 24c 23c 24c 23c 24c 23c 24c 24c 24c 25c 24c 23c 24c 24c 24c 24c 24c 24c 24c 24c 24c 24   |  | RION BENDEN NEIDE NAME OF STREET NAM  |
| b mpl'in Forged Horse Shoe Rurden Light, Medium Lie Shoes Lught, Medium Lie Shoes Lunning's Steel Cee Awls, Cl American lo Stional Ice Ch overly loc Bree Dunlep's King I Wood Head Pick See Mallets, Pick E Axes, Small ombination Ice Lice Cream F Lice Cream Lice Cre | 280 240 230 8. Co., Perkin and Heavy hiseis, &c c Chisel. isel. akers. Head Picks 'icks. & Sargent' s Sargent' s Sargent' c In Head c to Handle. Cast or Mall  | # dos a # dos   | dis di   | TBDLLPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPP  |
| hampion amily  etiles.  Brass, 7 to rass larger than nameled.  Kuives. mes' Butcher E mes' Shoe Kniv mes' Bread Kn. oran's Shoe and sy and Straw, able and Pocks Kunba.  Arriage (Jap'd arriage (Jap'd or Jap'd, oor Por Jap'd, oor Por Jap'd, oor Por Plated oor Por Plated   | rsinches inches.  Inives   | e dos a de  |  | tion state of the   |
| urniture Plain urniture Plain urniture, Wood leture (T. & S. Meture, Sargent'emsette, Picture unter, Forcelar adies.  Melting, Sargelting, Reading leiting, Sargelting, Rouroe leiting, F. S. & V. Lamerus. Mil Citystor. Mil City | gent's<br>Patent   | ₩ do  | dis 45&<br>dis 30&<br>s \$4.00 dis   | IO % Jaj  |

|  |                  | Townsend's Patent. Jen'ilnes "Star" The "Boss" "Star" The "Boss" "Star" Line "Line Fish Cotton Chalk.  Sil Lake Chalk.  Mason's Linen Wire Clothes, Galvanize Locks and Latche Cabinet, Eagle. Cabinet, Eagle. Cabinet, Bridgeport. Cabinet, Eagle. Cabinet, Bridgeport. Cabinet, Bridgepo |   | # doz, dis 331/3                                   |
|--|------------------|--|---|--|
| rd<br>200                                | is               | Lines.—Linen Fish  | @ dog (                                 | 4.00, dis 10&10                                    |
| 250                                      | ž10              | Sil. Lake Chalk  | NOS. 0, 1, 2, 3, \$6.                   |  |
| SI                                       | 5 %<br>let       | Locks and Latche<br>Cabinet, Eagle   | de                                      | in list price of                                   |
| &1                                       | 0%               | Cabinet, Gaylord   | some numbe<br>dis 25&2 %                | rs Jan. 1, 1881                                    |
| 1 50                                     | RANK             | Trunk, new list, Jan. 1, 1<br>Langstroth & Crane's Lis   | 881st, Jan. 1, '77 :                    | dis 30 - 40 %                                      |
| ÈI                                       | W.W.W            | Round Key, Nos. 1 to 5.<br>Round Key, Nos. 31/4 to<br>Flat Key   | 12                                      | dis 40&10 %<br>dis 40&10 %<br>dis 33%&10 %         |
| 6  | AMM              | A. E. Deitz, Fiat Key<br>Yale Lock Co., Flat Key.<br>"Shepardson" or "U. S.  |   | dis 30@40 %  |
| 60                                       | N.N.             | "Felter" or "American'<br>Plate<br>F. Many's "Extension Cy   | linder"                                 | dis 331/602 %<br>dis 331/602 %<br>10.50 # dos net  |
| 10                                       | MMM              | Branford   | LOCKS, ETC.                             |  |
| 50                                       | XXX              | P. & F. Corbin<br>Russell & Erwin  | List prices as 1<br>8, 1882, d          | revised March                                      |
| 50                                       | XXX              | Whipple Mfg. Co  |   |  |
| 25                                       | *                | Padiocks—Russell & Erw<br>Maliory, Wheeler & Co.   | ln                                      | dis 35 %   |
| 25<br>50<br>25                           |                  | Wm. Wilcox & Co  | tandard"                                | das for each                                       |
| 75<br>25<br>00                           |                  | Conestoga. Miller's 6 Lever.   |   | dis 30 %   |
| 25                                       | ×                | J. H. McWilliams.  |   | dis so \$  |
| 25                                       | 8 .              | Lustro4-oz. bottles,   | # doz \$2.00; # g                       | TOS \$18.00 net                                    |
| 35<br>50<br>30                           | i                | Penfield Block Co., Lig., A<br>Ment Cutters.   | pple & Hickory                          | dis rotto %  |
| 00                                       | 1                | Dixon's(P.S.&W.)Nos. 1<br># doz. \$14.00<br>Miles' Challenge   | 17.00 19.00 30.<br>OS. 1 2              | 4<br>.00-dis 25&5 %                                |
| 00                                       | 1                | Perry's.Nos. 1 2 3<br>Each\$3.00 4.00 5.00   | 4 4 g rd 5 g                            | 40.00 - dia 35 %                                   |
| 10 5                                     | ,                | Woodruffs (P. S. & W.)   | Nos. 100 1<br>doz. \$15.00 18.          | 50<br>00—dis 25&5 %                                |
| 10 10 10 10 10 10 10 10 10 10 10 10 10 1 | 1                | Draw Cut. Nos. 5 2   | 80.00 335.00                            | dis 50&10&s %                                      |
| 10                                       | 1                | Nos I 2  | 3 4                                     | B 4  |
| 5 9                                      | Z below          | Kleser's No. 55<br>Kleser's Gem  |   | dos dis 40 %                                       |
| 35                                       | F                | Pennsylvania I   | 2                                       | dis 40ctro %                                       |
| 0 9                                      | E                | leef Shavers (Enterprise M<br>Mincing Knives.  | rg. Co.,                                | 00 28.00<br>dis 25 %                               |
| 9 9 9                                    | L                | 3 blades, \$18.  | olade, \$7; 20                          | dis 20&10 %  |
| 0 %                                      | 0                | owles Edw. Co  | ;; Double, #3                           | dis 40&10 %  |
| 0 %                                      | 00000            | tebbins Genuine<br>tebbins Tinned Ends   |   | dis 70&10 %<br>.dis 6716&10 %                      |
| 0 %                                      | BL               | ush's  | **************                          | dis 50&10 %<br>dis 50&10 %                         |
| 8 %                                      | B                | 006 Nos. 1 2<br>87.00 8.00   | 3 4<br>9.00 to.o                        | dis 15 %   |
| 18                                       | BB               | oss, Japanned Finish<br>Oss, Bronze Finish<br>Tails  | See T                                   | .dis 60&10 %<br>.dis 50&10 %<br>rade Report        |
| %  | Se               | m add %c to list) quare Nuts   | m(In lots les                           | 70 off list  |
| 5 % W                                    | W                | exagon Nuts  | ****** *** *****                        | oc off list  |
| M. M. M.                                 | THE              | able (Humason & Beckley<br>lake's Pattern  | Mfg. Co.)                               | oz \$2.00, net                                     |
| 男女女                                      | (                | Nut Crnckers. Aut Crnckers. Able (Humason & Beckley lake's Fattern. On Akum.—is on 100 bales Best. Navy Avy Oilers.—Zinc and Tin rass and Copper. Lalieable (Hammer's). Tior's Fattert or "Paragon rior's Pattert or "Paragon limited"s, Ill and Zinc. Instead of Line and Copp roughton, Line Ox Buth, Stass. Ox Buth, Stass. Ox Buth, Stass.   | and over 1/4 %                          | 8 m.   |
| et.                                      | N P              | OilersZinc and Tin   | ******* *********<br>******* ********   | ₩ 10 8 c<br>₩ 20 6%(c<br>dis 60 %                  |
| **                                       | MA               | alleable (Hammer's).<br>rior's Patent or "Paragon  | "Zine dos.                              | 15.00, dis 10 %                                    |
| × × 10                                   | 000              | imstead's, Tin and Zine<br>imstead's, Brass and Copp   | er                                      | dis 50 %   |
| **                                       | Bi               | oughton's, Brass   | ***************                         | dis socie  |
| MMM                                      | I                | roughton's, Brass. Ox Bailis. Dacking, Steam. N.Y. Belting and Paci Peuclis. Carpenters'. aber's Carpenters'. ixon's Lead. Ixon's Lumber. Ixon's Carpe Plears'.  | ring Co                                 | dis 20 %   |
| MMM                                      | F                | aber's Round Giltixon's Lead   | man was                                 | 1185, din 50 %<br>58 \$5.25, not<br>68 \$4.50, nos |
| MM                                       | Di               | xon's Carpesters'  | W gro                                   | .dis 406010 \$                                     |
| 万万万万                                     | Bi               | ixon's Carpeters' Picture Nutla.  rass Head, Sargent's list  rass Head, J. & S. Mr. C. O.  to Collant Head, J. & S. Mr. C. O.  proclant Head, J. & S. Mr. C. O.  Pinking Irons  Plaking Head, J. & S. Mr. C. O.  Platting Machines  agic  sur Platting Machine  rown Platting Machine  rown Platting Machine  rown Platting Machine  rown Platting Machine  planting Machine  rown Platting Machine  | st                                      | .dis 45@10 %                                       |
| 555                                      | Po               | orcelain Head. Judd's list<br>orcelain Head, 1', & S. Mig<br>iles' Patent  | Co                                      | dia 40 %   |
| %  | M                | Plaiting Muchines.   | W do                                    | dos 750, net                                       |
| * * *                                    | Ci               | own Plaiting Machines<br>6 in., \$6.00; 10 is  |   | 5.00. dis 20 1                                     |
| * * *                                    |                  |  |   |  |
| **                                       | Me<br>Ba         | nech Second Quality olding.  alley's (Stanley R. & L. Co.) is estanley (S. R. & L. Co. on alley's "Victor" finance Adjustable.  Anne frome, Butcher's ane frome, Butcher's ane frome, Butcher's ane frome, Then Globe from the Globe fr | new list, Jan.'7                        | dis 15 5   |
| ×  | Ba<br>De<br>La   | illey's "Victor"<br>chance Adjustable  | *************************************** | dis 20&10 %  |
| 16                                       | PI               | ane frons, Butcher's<br>ane frons, Buck Bros<br>ane frons, Auburn Tool Co  | 0                                       | 85.50 to £   |
| 15                                       | PI               | ane Irons, The Globe<br>iron" Ohio Tool Co   | Mig. Co., "                             | Baldwindia ?-                                      |
| 北京家                                      | PL               | ane Irons. Sandusky Tool<br>Pliers and Nippers.<br>atton's Patent.   | Co                                      | dis 30 %   |
| XXX                                      | H                | Atton's Fatent.  Att's Pat. Compound Lever,  In. 51, 50; No. 4, 7in. 52;  mason & Beckley Mfg. Cts  Bylers and Nippers.  seed's Parallel.  S. & W. Cast Steel.  S. & W. Cast Steel.  S. & W. Cast Steel.  S. & W. Tinners' Cutting  Plumbs and Levels.  ston's.  | Cutting Nippe                           | ers, No. 2,<br>dis 25 %                            |
| **                                       | Ga<br>Eu         | is Pliers  | **************                          | dis 40 %   |
| **                                       | P.               | S. & W. Cast Steel<br>S. & W. Tinners' Cutting<br>Plumbs and Levels.   | Nippers                                 | dis 35 %   |
| ×  | Sta              | S. & W. Tinners' cutting Flumbs and Levels. sston's. sston's. sston's. anley R. & L. Co.'s Pat. Adanley R. & L. Co.'s Non-Adulation and pin's Patent Adjustable. sapin's Patent Adjustable. sapin's Non-Adjustable. sapin's Non-Adjustable. sapin's Non-Adjustable. sapin's Non-Adjustable. sapin's Non-Adjustable. sapin's Non-Adjustable. substantial Research Adjustable. state of Non-Addustable. state of Non-Adjustable. state  | ijustable                               | dis 65 & 10 %                                      |
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| 2  | Sta<br>Joi<br>Po | andard Rule Co.'s Non-Ad<br>hnson's Patent Adjustable<br>ck: t Levels  | justable                                | dis opera s  |
| MMM                                      | Da               | vis' Inclinometers   | ugera.                                  | 65&10 %<br>dis 20 %                                |
| × 6                                      | Fle<br>Va        | tcher Post Hole Augers<br>ughan's Post Hole—   | 25.00 % dog                             | 00, 118 20 \$                                      |
| 5  | Eu               | reka Diggers # doz \$27.00.<br>ed's each \$2.50.   |   | net  |
| 8  | Dis              | iston's Combined Pruning   | Hook and Sav                            | co, dis 20 %                                       |
| 6  | E.               | S. Lee & Co.'s Pruner<br>uning Shears  | doz                                     | dis 533-5 %<br>85-50 @ 6.00                        |
| 4  | Du               | nlap's Saw and Chisel  Pulleys. t House and Tackle   | # dos 89                                | .00, dis 10 %                                      |
| i  | 7 10 1           | p'd berew  |   | \$ 00 E 2 E 10 %                                   |
|  | Jar<br>Ha<br>Ha  | o'd Side   | Swivel, \$5.00,                         | dis 54&10 %  |
| -  | Ha<br>Ha         | y Fork, "F" Common and<br>y Fork, Tarbox Pat. Iron.<br>ide Rack.   | Pat. Bushed.                            | dis 20 %   |
|  | Bel              | t or Drive   | E \$2.00; 2.24 2.                       | to, dia so %                                       |
|  | Ber              | nis & Call Co.'s Springfielding.   | Socket<br>dos \$7.00, d                 | dis sodes si<br>is sode 736 s                      |
| 1  | Ben              | tor brive.  ** do nis & call Co. 's Cast Steel nis & Call Co. 's Springfield nis & Call Co. 's Springfield ing. ting. Leach's Patent nis ** Call Co. 's Spring and id, Tinners'.   | Check doz 81.                           | dis 40 %   |
| -  | R                | ail.<br>Sliding Door, Wrought Bing Door, Bronzed Wrt. Ling   | rass W D 43                             | se, dis so %                                       |
| 1  | Bar              | , Sliding Door, Wrought E<br>ling Door, Bronzed Wrt. In<br>ling Door, Iron, Painted<br>n DoorInch  | 60 3.60 4.6                             | 6 dis to \$  |
|  |                  | Small.  100 feet   | Med.                                    | Large.   |

| October 19, 1882.  | T  |
|--|--|
| Razor Strops   | Shevels and Tengs.<br>Iron and Brass Head, R. & E. list dis 60&10&2 %<br>Polished Steel, new list dis 50&10&2 %  |
| Razor Strops.  | Blates.  Rquare Frames, by case  |
| Chapman. Saunder's.  Gis 10 %  Torrev's.  Rivets.  Gis 20 %  Rivets.   | Nelson Tool Works dis 40&10 %  |
| Rivets   | Spoke Shaves.  |
| Rivet Sets   | Stearns'   |
| Stair, Brass   | Spoke Trimmers.  |
| Rollers.  Barn Door, Sargent's list  | Bastingdis 60&10&10 %  |
| Manila   | Reed & Barton         dis 40&10&5 %           Hall & Elton         dis 40&10&5 %           Holmes, Booth & Haydens         dis 40&10& %           German Silves         dis 20&10 & %  |
| Manila, Tar'd Lath Yarn  | Cast Steel, Silver Plated.   |
| Sisal. 4 and 5-10 inch \$ 5 12 0 Sisal. Hay Rope. \$ Boxwood. Ivery.   | Tin (Cowles Hdw Co.), case lots  |
| Active   Anti-Friction   | Hindostan No. 1, bc; Axe, 8c   |
| Stephens.    ad irons.   % 5 35(c net Self-Heating   | Nione   Hindostan No. 1, bc; Axe, 8c   #gross \$1.20 dis 10 %   Hindostan Hacker Stone   #gross \$1.20 dis 10 %   Sand Stone   #b 5c, dis 31,56 to 5; Washita Stone   No. 1, #b 5cc net Washita Stone   No. 2, #b 10 fec net Washita Stone   No. 1, #b 5cc net Washita Stone   No. 1, 4 b 5cc net Washita Stone   No. 1, 4 to 6 in   #b 10 fec net Arkansas Stone No. 1, 4 to 6 in   #b 52,5 dis 10 fec net Arkansas Stone No. 1, 4 to 6 in   #b 52,5 dis 10 fec net Turkey Oil Stone (Chase)   4 to 6 in   #b 6cc, dis 10 % Turkey Sipps (Chase)   #b 16c, dis 10 % Lake Superior (Chase)   #b 16c, dis 10 % Grindstones, Family, Loring's   dis 10 % Niove Polish   dis 10 %   |
| Gleason's Shield and Tollet  | Arkansas Stone No. 1. 5to 9 in   |
| Sand Paper.  Bacder & Adamson's Flint, co to 1/4\$4.75 F ream  Except & Adamson's Flint, 2, 2½ & 3. 5.25 F ream  2 2   | Lake Superior, Slips (Chase)   |
| Raeder & Adamson's Fint, assorted. 4.75 \( \pi \) ream Raeder & Adamson's Star   | Stoke   Polish   Stoke   |
| Barties Harrison, \$4.75 & ream dis 35 %<br>New England same list as B. & A. Flint dis 36 %<br>Gage's dis 3685<br>Sash Cord.   | Ruby. # gross 83.75, net Rising Sun. # gross 85.75, net Dixon's Plumbago. # B 8c, net  Squares.  |
| Common # 10 to the Fatent   Patent   # 10 to the Fatent   # 10 to the Fa   | Steel  |
| Combined Fluter and Sad Iron. \$\psi\$ doz \$1:.00, dis 1; \$\$  Sand Paper.  Raeder & Adamson's Flint, 2, 9; \$2, 5:4; \$7 ream  Facquer & Adamson's Flint, 2, 9; \$3, 5:4; \$7 ream  Facquer & Adamson's Flint, 2, 9; \$3, 5:4; \$7 ream  Facquer & Adamson's Flint, 2, 9; \$4, 5:5; \$7 ream  Facquer & Adamson's Flint, 2, 9; \$4, 5:5; \$7 ream  Facquer & Adamson's Flint, 2, 9; \$7 ream  Facquer & Adamson's Emery. \$7 ream \$5.00 & 11.40;  Facquer & Flint. \$1, 5:7; \$7 ream. \$2, 7; \$7 ream  Facquer & Adamson's Emery.   | Disston's Try Square and T Bevels  |
| Nash Locks.  Clark's, No. 1, \$10.00; No. 2, \$8.00 per grossdis 33½ %  Ferguson's dis 33½ %  Malter's net   | I New List, Sept. 1, 1882.  Tinned Swedes Tacks  |
| Clark's, No. 1, \$10.00; No. 2, \$3.00 per gross. dls 33\6 x Ferguson's  | Winterbottom's Trv and Mitre   |
| The Perfect, Clark & Smith, N-Plated. # gro. \$27.00 net<br>"Universal" dis 30 %   | Finishing Nails. dis 5 0 Trunk and Clout Nails. dis 5 0 Common and Patent Brads. dis 6 0 Basket Nails. dis 7 0   |
| Solid Eyes, in too \$\( \text{lots} \) bots and over. \( \psi \) \$\( \text{s} \) by sight net \( \text{Pausasge Stuffers or Filler**. } \) doz \$\( \text{so} \) dis 25\( \text{S} \) \( \text{Perry} \), \( \phi \) doz, \( \text{No.} \), \( \text{s} \); \( \text{No.} \), \( \text{s} \); \( \text{dis 26} \text{S} \), \( \text{Perry} \), \( \text{Post} \) dis 26\( \text{S} \), \( \text{Call B 20} \), \( \text{So} \), \( \text{dis 20} \), \( \text{So} \), \( \text{dis 20} \), \( \text{So} \), \( \text{dis 20} \), \  | Brush Tacks dis Leathered Carpet Tacks dis American Cut Tacks dis Cirar Box Nails  |
| Enterprise Mfg. Co. dis 25 % Silver's dis 25 %   | Chair Nails  |
| Disston's Circular   | Tap Borers   |
| Boynton's Lightning Cross Cuts, new list. dis 40%<br>Boynton's One-Man, ail lengths, new list. dis 40%<br>Boynton's Billet Webs, 30 Inch. new list. dis 40%<br>Boynton's Lightning Buck Saws X Bar. dis 40%  | American   |
| Boynton's Lightning Hand, Panet and Rip  | Thermometers, Tin Case. dis 70% to \$  Tobacco ('safters, Enterprise Mg. Co. (Champion)  |
| Livington's Framed Wood— Nos 101 102 103 104 104 Per dos \$10.00 8.00 10.00 7.40 6.20 net Peace Circular and Mill  | All Iron # doz #5,50, dis 40.85 %<br>Nashua Lock Co.'s # doz #18.00 dis 508.55 %<br>Wilson's dis 35 %  |
| Peace Hand, Panel and Rip.         dis 25%           Peace Cross Cuts.         dis 35 %           Peace Band Saws, all widths         dis 10 %           Richardson's Clicular         dis 40 %  | Toe Calks. Winsted. Tinners' Tools and Machines. Machines (P. S. & W.)   |
| Richardson's Mill and X Cut. dis 40% Richardson's Hand Panel, Butcher and Web Saws. dis 25 %   | Machines (P. 8. & W.)   list add 20 %   Tools (F. 8. & W.)   add 6 %   Transom Liters.   Wollensak's Patent   Machines  |
| Enterprise Mig. Co.  Silver's  | Execisior a rate to the recognition of the recognit   |
| Boynton's Patent X Cut, per dos, \$12.00; Hand Saw<br>per dos, \$10.00   | Traps   Game, Newhouse   Gis 9, 5  |
| Common Lever:  | Mouse Cage, Wire.   \$\psi\$ doz \$2.50, dis 10 %   Mouse, Catch-em-alive.   \$\psi\$ doz \$3.50, dis 10 %   Rat, "Decov".   \$\psi\$ doz \$10.00, dis 10 %   Tráwels.   |
| Bemis & Call Co.'s Lever & Spring Hammer. dis 3c&5 5 Bemis & Call Co.'s Plate  | Lothrops' Brick and Plastering   |
| Saw Nets.  Boyston's Patent X Cut, per dos, \$12.00; Hand Saw per dos, \$50.00.  \$0.00.00.00.  \$0.00.00.00.  \$0.00.00.  \$0.00. | Tyswels.   Lothrops   Hick and Plastering   dis 25 %   Reed's Brick and Plastering   dis 15 %   Disaton's Brick and Plastering   dis 25 %   Paace's Plastering   dis 25 %   Paace's Plastering   dis 25 %   General & Maynard's   dis 20 %   General & Maynard's   dis 25 %   dis 15 %   dis 25 %   dis   |
| Mortill's   Mort   | Triers. Butter and Cheese  |
| Fairbanks dis 20 % Richić Bros dis 30 % Ruffalo Scale Co dis 30 % Fuffalo Scale Co dis 20 % Fuffalo Scale Co dis 20 % Fuffalo Scale Co dis 20 %  | Trucks (Warehouse, &c. Penfield Block Co.'s list, 1882   |
| Howe's dis 20&10 % Chatillon's Grocers' dis 40 % Chatillon's Eureka dis 25 % Family Universal dis 50 %   | Views   Note   |
| Family Favorite  | Solid. Wilkinson's. 135/cc Parallel. Parker's. dis 105 prarallel. Wilson's. dis 25&10 prarallel. Wilson's. dis 25&10 prarallel. Wilson's. dis 25&10 prarallel. Howard's. dis 25&10 prarallel. Howard's. dis 105 prarallel. Backus and Union. dis 105 prarallel. Sargent's. dis 105 prarallel. Sargent's. dis 105 prarallel. Could side of the 105 prarallel. Outlies Screw Leg. dis 105 prarallel. Prentiss. dis 25 prarallel. Prentiss. dis 25 prarallel. Frentiss. dis 25 prarallel. Simpson's Adjustable. dis 25 prarallel. Dis 25 prar   |
| Scrapers   | Parallel, Backus and Union   dis 5.5 tc 2     Parallel, Double Screw Leg   dis 1921     Parallel, Double Screw Leg   dis 1921     Parallel   Double Scre   |
| Benance Box and Silve Si   | Parallel, Frentiss. dis 25 % Parallel, Simpson's Adjustable. dis 25 % "Family." List   |
| Ship, Previdence 1001 ceres.  Scree B Corners.  Porter's Pat. Window and Door Frame. dis 33/4  Screw Drivers.  Douglas Mig. Co. dis so&ro&ro 5  Dission's dis 40 5  Dission's Patent Excelsion. dis 40 5  Dission's Patent Excelsion.  | Saw Filers, Hopkins' \$\vec{y}\$ dos \$17.50, dis 10 \$\text{Saw Filers, Reviding}\$. \$\vec{y}\$ dos \$\$17.50, dis 10 \$\text{Saw Filers, Reviding}\$. \$dis 35\text{\$\text{\$\text{dis 35\text{\$\exit{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\te |
| Disston's Patent Excelsior. dis 40 g Buck Bros dis 25 g Stanley Rule & Level Co.'s, Varnished Hdisdis 40 g Stanley Rule & Level Co.'s, Black Handles, dis 40 g Stanley Rule & Level Co.'s, Black Handles, dis 40 g Stanley Rule & Level Co.'s Black Handles, dis 40 g Stanley Rule & Level Co.'s Black Handles, dis 40 g Stanley Rule & Level Co.'s Black Handles, dis 40 g Stanley Rule & Level Co.'s Black Handles, dis 40 g Stanley Rule & Level Co.'s Stanley Rule Sta   | Masser Cutters   W dos \$11.00, dis 25 %   |
| Distribut   Patent Excelsion   dis 40 %  | Washers, -See Nuts and Washers.  |
| ₩ dox, 4 in., 87.00; 5 in., 88.00; 6 in., \$0.00—dis 15 % Cowles Hdw. Co., No. 1 Extra. dis 26% 10 % 20% 10 % 10 % 10 % 10 % 10 % 10 %   | Weil Wheels  |
| Cowles Hdw. Co., Nos. 4 and oc   | Bright and Annealed Nos. 0 @ 18, dis 40 @ 42% \$ Bright and Annealed Nos. 19 @ 26, dis 60 \$ Bright and Annealed Nos. 27 @ 36, dis 61 \$ Coppered Nos 0 @ 18 dis 45 @ 47% \$   |
| Round Head Iron.         dis 25 %           Flat Head Brass.         dis 30 %           Round Head Brass.         dis 20 %           Prass and Silver Cauped.         dis 40 %   | Gairwanised, Nos. o to 16  |
| Japanned, list of Plain Screws. dis 20 % Coach, Patent Gimlet Point dis 20 % Coach, Common or Lag. dis 60 % Red dis 10 %   | Annealed Grape, Nos. 10 to 14. dis to 6 432 3 Galvanized Telegraph, Nos. 7 to 6 W 5 7 c Galvanized Telegraph, Nos. 10 to 11. W 5 8 40  |
| Machine, Flat Head, Iron. dis 55 % Machine, Round Head, Iron. dis 56 % Bench, Iron. dis 55 & 56 in 8 Rench, Wood, Beech. \$\Psi\$ dos \$3,00, dis 16 \$5\$   | Fence Staples. \$ 5 % 6 % 6 % Fence Staples, Galvanized. \$ \$ 5 7 % 7 % 5 % 6 % 6 % 6 % 6 % 6 % 6 % 6 % 6 % 6   |
| Bench, Wood, Hickory   | Galvanised Barb Fence. B 304c<br>Steel Music Wire, Nos. 12 to 27. B 31.2c, net<br>Turner & Seymour Mfg Co., Ficture Wire, low list.  |
| Hand Rail, Am. Screw Co., list of Jan. 1, 'lsdis 70 % Jack (Wilson's). dis 25 % Screw Window Balances. R. B. Huganin's, No. 1, \$2.10; No. 2, \$1.75; No. 3 \$1.50. \$4 dos not  | Jud's Ficture Wire.  Clothes Line Wiro, Galvanized.  Wire Cloth, green, drab and black.  Wire Cloth, green, drab and black.  Wire Cloth, green, drab and black.  |
| \$1.50 W dos not   | American Adjustable  |
| Scroil Saws. Lester, Sto.co  | Baxter's Diagonal dis zec's Coes' Genuine dis cate; a Coes' Genuine dis colors Coes' Hechanics dis colors Coes' Pattern Malleable dis colors Coes' Pattern Wrought dis colors Coes' Pattern Wrought dis colors Girard Standard dis colors Girard Standard dis colors Girard Agl. dis colors Gemis & Call's Patent Combination dis colors Gemis & Call's Pattern dis 55 Eemis & Call's Briggs' Pattern dis 25 Eemis & Call's Briggs' Pattern dis 25 Eemis & Call's Call's Colors  |
| Barnard's Lamp Trimmers   Gos #9-77   Tingers   Gis 1,5   Seymour's, List, Dec. 1881   Gis 10-5   Heimsch's, List, Dec. 1882   Gis 60-5   Heimsch's Tailor's Shears   Gis 234-5   Mass. Cullery Co. St. Trimmers   Gis 234-5   Gis 735   G   | Girard Agl.  Girard Agl.  Bemis & Call's Patent Combination dis 20 S  Bemis & Call's Merrick 'sPattern dis 35 S  |
| Mass. Cutlery Co. St. Trimmers. dis 33/4 % Mass. Cutlery Co. St. Trimmers. dis 75 % Sheaves. Sliding Door. M. W. & Co. list. dis 44&2 %  | Bemis & Call's Cylinder or Gas Pipe dis 45 \$ Bemis & Call's Cylinder or Gas Pipe dis 45 \$ Van Wagoner & Williams' Basin # dos 84 50 Aiken Pocket (Bright) 86.00, dis 50&10 \$  |
| Silding Door, R. & E. list   | Webster's Patent Combination dis 25 %  Wringera. Per dos.  Universal, XX, No. 214  |
| Sheaves.  Siding Door, M. W. & Co. list  | Universal XX, No. 2 48.00<br>Universal XX, No. 15 4.00<br>Universal, XX, No. 1 50.00<br>Universal, XX, No. 8 0000 No. 0000   |
| Shovels and Spades. Ames, New list, July 1, 1881   | Webster's Patent Combination         dis 2 s           Wringers.         Per dos.           Universal, XX, No. 2½.         45,00           Universal, XX, No. 1½.         45,00           Universal, XX, No. 1½.         46,00           Universal, XX, No. 12.         each 10.75           Universal, XX, No. 12.         each 20.25           Universal, XX, No. 13.         each 20.27,75           Peerless, XX, No. 16.         each 20.27,75           Peerless, No. 10 Cogs. No. 1         42.00           Peerless, No. 10 Cogs. No. 1         42.00           Peerless, with Cogs. No. 2½         45.00           Peerless, with Cogs. No. 3         45.00           Peerless, with Cogs. No. 3         45.00           Peerless, with Cogs. No. 4         40.00           Peerless, with Cogs. No. 5         45.00           Peerless, No. 4         40.00           Peerless, No. 5         40.00           Peerless, No. 5         40.00           Peerless, No. 3         40.00  |
| Shovels and Spades, Ames, New list, July 1, 1881 Grimths dis sokro 5 Old Colony dis 1,5 Payne Pettebone & Son, new list. dis sokro 5 Payne Pettebone & Son, R. R. Shovels dis 1,5 Remington's (Lowman's Patent) dis 98 Remington's (Lowma   | Peerless, with Cogs. No. 216. 45.00 Peerless, with Cogs. No. 2. 45.00 Peerless, with Cogs. No. 3. 54.00 Peerless, with Cogs. No. 4. 56.00  |
| Bowland'sdls ackios  | Auress, NO. 2 # doz 42.00  |

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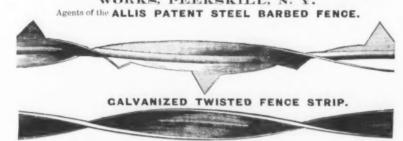
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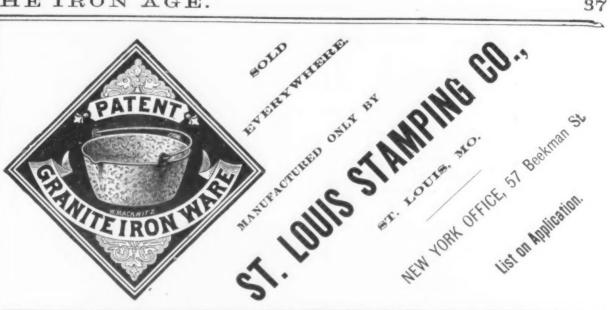
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| Bering Machines.  Upright, without Augers  | 1       |
| Belts.—Eastern Carriage Bolts  |         |
|  |         |
| American Ball  |         |
| Butts,—Cast Fast Joint, Narrow. dis 45210 8  Cast Loose Joint, Narrow. dis 55610 8  Cast Loose Joint, Narrow. dis 55610 8  Broad. dis 55610 8  Acorn. Loose Pin. dis 55610 6  1 Acorn. Loose Pin. dis 55610 6  | C       |
| " Broad dis 5,210 g " Acorn. Loose Pin dis 50,210 g " Mayer's Loose Joint dis 6,210 g " Mayer's Loose Joint dis 6,210 g " Wrought Loose Pin dis 5,210 g " Table Hinges and Back Fiaps dis 4,220 g " Narrow Fast dis 4,220 g " Loose Joint dis 5,810 g  |         |
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| Piane irons.—Ohio Tool Co  |         |
| Butcher's  |         |
| Razer Strops   |         |
| Rasor Strops   Der dos. \$4.0  | 0       |
| Steelyards.—Hart's Pattern   |         |
|  | 6       |
| Squares. Ala so S : full case dis sokto i  |         |
| Try Squares, Stanley dis 66210; Disston's Try Squares. Scythes.—Golden Clipper, Damascus Blade, Boxed and Sharpened.  \$\pi\$ 05 \$\text{49},00\$ \$\text{100}\$   |         |
| Soythes.—Golden Clipper, Damassous Blade, Boxed and Sharpened.  Clipper No. 10, Bronzed Blade, Boxed and Sharpened.  Glapper No. 5, Painted Red, Boxed and Clipper No. 5, Painted Red, Boxed and Sharpened.  Sharpened   | 0       |
|  | 2000    |
| Disston's Circular. dis 40; Disston's Circular. 2. Plain Tooth. dis 40; Patent Tooth. dis 40; "Cross-Cut No. 2. Plain Tooth. dis 40; "Champion Tooth. dis 40; Boynton's Lightning Cross Cut, new list. dis 40; "Lightning Buck Saws, cross bar. dis 40; "Bhayala and Smatter."   |         |
| dia  |         |
| terimena.  | 5 1     |
| Bad Irons,-4 to 10 lbs   | 61      |
| Sad Irons.—4 to 10 los   | bl.     |
| Mrs. Petts' Patentdis 35   |         |

| otober 19, 1882.   | T  | 1]                     |
|--|--|------------------------|
| PHILADELPHIA.  | Screws. dis 90 %   |                        |
| Corrected Weekly by Lloyd, Supplee & Wallon.) erms, 30 days, For 60 or 90 days, interest added at 10% per cent. per annum.   | Screws.   Ital Head Iron   dis 90 %   Brass   dis 30 %   Grand Head Brass   dis 20 %   Grand Head Brass     | 34                     |
| per cent. per annum   per cent. per annum  | German Silver. dis 30 & 70 % Britannia, Boardman's. dis 60 % Gis 60 %  | 7-3                    |
| Over 200 108   | Tinned dis 10 %  Springs. Torrev dis 40 dis 10 %  Gem No. 3 small Jap'd \$2.00 (dis 40 %   | 3-1<br>5-3<br>18<br>Ol |
| pple Parers  | No. 2 medium Jap'd. 2-75) Coil No. 30, per gross net \$10.00 Warner Door Springs, per doz. net 1.75 Standard Springs Huges.  |                        |
| Ness. Kentucky and Yankes, per dox \$10.00 @ 10.50<br>Hunt's Kentucky and Yankes, per dox \$10.00 @ 10.50<br>Robert Mann   | Single No. o, per doz. net.   1.50    | 01                     |
| Xess.  | Stove Polish.—Gem.   \$ gross, \$4.50, dis 5 %   Dixon.   6.00, dis 15 %   Dixon.   6.00, dis 15 %   Fire Fly.   \$3.00 gross net  | 7-1                    |
| ugers and Auger Bits.—New List January 7, 1880.     Bates Nut Augers   | Shoe Nails-4-8, 70.: 314-8, 8c \( \Phi \)  | lis                    |
| Watrous' Snip Augers   | Genuine Oneida—Newhouse  | Ci                     |
| Double Bit Axes.   Beta   But  | Traps.  Genuine Oneida—Newhouse  | T                      |
| Light and Commondis 15&10 %  | Wire.  Bright or Ann'd, No. o to 18  |                        |
| Bevin Bros. Mfg. Co. Light Hand Bells dis 64&10 \$<br>Swiss Pattern Hand Bells low list dis 40&10 \$<br>Connell's Door Bells dis 10 \$<br>Qt. Western & Kentucky Cow, new list dis 50 \$   | Wire.  Bright or Ann'd, Ne. o to 18  | AAF                    |
|  | Postless No ald  | P                      |
| Selts.—Eastern Carriage Bolts  | Universal, No. 21/2  | TTPC                   |
| Borius   Machines   List   5.50  | PITTSBURGH.  | RST                    |
| American Ball  | Merchant Iron. TERMS.—Note or acceptance at 60 days, with current rate of exchange on New York, or a discount of 2 percent, for cash, if remitted within 10 days from date of  | P                      |
| Cast Loose Joint, Narrow. die 55&10 5  Broad. die 54&10 g  Acorn. Loose Pin. die 50&10 6  Jap'd. die 50&10 5   | invoice,   | В                      |
| Wrought Coose Pin  | For fluctuations and discounts<br>on card rates see weekly Pitts-  | B                      |
|  | burgh Trade Report.  The following are card rates.  Flat Flat.   | SL                     |
| Parker         dis 70% 2 %           Clark         dis 70% 2 %           Shepard         dis 70% 2 %           Luit & Porter         dis 50% 2 %           Luit & Porter         dis 50% 2 %           Huffer         dis 50 %           Company         dis 50 %  | The following are card rates.  Flat Bar.  134 to 4 by 34 to 1 inch   | 8                      |
| Townson Belton and Gall May Townson  | 136 and 136 by 36 to 36 2.6c t and 146 by 36 to 36 2.7c 36, 36 and 36 by 36 to 56 inch. 2.9c   | T                      |
| Galvanized Pump  | 1 to 1%  | 8                      |
| Chisels  | to 174   | 11 11 11               |
| Plate dis 25/210 %   | % to 136390   36   | ST                     |
| Coffee Mills.—Box and Side, new list Jan. 1.           1880  | Half Oval and Half Round.  | FHH                    |
| Cutiery.—Walden Pocket   | 78 00 178 03 3.10 00 78 1000111111111111111111111111111  | EC                     |
| facturers' prices not.  Drawing Knives. Hart Mfg. Co.'s  | " " 11 and 12  | 3                      |
| Raw Dana   | 3, 8c 3, 8c 4.4c 4.4c 4.1c 4.4c 4.1c 4.4c 4.1c 4.4c 4.1c 4.1   | FAS                    |
| NO 0 3 2 3 4 5 6 8   | 356 to 6 by 56 and 5-16 inch 2.7c 15 to 356 by 56 and 5-16  2.7c 1 to 156 by 56 and 5-16  2.7c 2 to 2 by 56 and 5-16  2.8c   | 080                    |
| # dos.#3.00 3.75 4.25 4.75 5.25 0.00 7.00 8.00 9.00 Fo 0 1 2 3 4 5 6 7 8  # lee. Nicholson discost   | % and % by % and 5-16  | T                      |
| Diaston dis 40 % Butcher \$4.50 £ Finting Machines.  | 1 to 1% by % to 3-10   | 11                     |
| Eagle 35 in. roll 2.85 dis 25 %  Crown 45 in. roll 4.50 dis 25 %   | 76 and 19-10 by No6. 11 and 12. 3.50 h and 11-16 by 1610 3-16  | FR                     |
|  | ## Heavy Bands. 4-10  1% to 3% by % and \$-16 inch. 2.70  1 to 1% by % and \$-15 2.10  2 to 1% by % and \$-15 2.20  3 to 1% by % and \$-15 2.20  5 and \$-10 1 6.20  5 and \$-10 1 6.20  5 and \$-10 1 6.20  1   | 8 B                    |
| Yerkes & Plumb's, new list   | 134 to 4, Nos. 13, 14 and 15   | 8                      |
| Handles. Disston Loop Handles Crosscut330 pair net Boynton Loop Handles Crosscut330 pair net Hatchets.   | 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2  | E                      |
| Yerkes & Plumb, new list   | 134 to 4, Nos. 15, 17 and 18. 3-30 134 to 2, Nos. 16, 17 and 18. 3-40 134 to 2, No. 30. 3-50 134 to 3, No. 30. 3-50 135 to 3, No. 30. 3-5 |                        |
| Ausable 90 27 24 23 22 Pol'ed & P't'd and  | 76. Nos. 13, 14 and 15. 5.7C<br>74. Nos. 16, 17 and 18. 3.7C<br>76. Nos. 19 and 20. 3.8C   | t                      |
| Blued and Pointed. 31 25 2 25 24 23  | 7a. NO. 21     4.0c       7b. NO. 22     4.1c       13-16 Nos. 13. 14 and 15     4.1c       11-16. Nos. 10. 17 apr d 18     3-90   | 8                      |
| Gione, 20%   | 13-16, Nos. 19 and 20. 4-10<br>13-16, No. 21 4-20<br>13-16, No. 22 4-30  | E                      |
| Lightning  | \$\begin{array}{llllllllllllllllllllllllllllllllllll   | t                      |
| Locks and B noon.  | 98, NO. 28<br>11-10, Nos. 13, 14 and 15,   | 000                    |
| Caviord Cabinet   dis 2582 % cash   American Padlocks   dis 2582 % cash   Scandinavian Padlocks   dis 2582 % cash   di | 11-16, No. 21. 4-5c<br>11-16, No. 22. 4-5c<br>46, Nos. 13, 14 and 15 4-40  | 1                      |
|  | 98, NOS. 10, 17 and 15<br>98, NOS. 10, and 20 4-5c<br>46, NO. 21 4-5c<br>86, NO. 22 4-7c   | -                      |
| Buckeye  | 10, 0, 21  | I                      |
| Philadelphia new list Excelsior. dis 30 % Lawu and Garden Pumps. List \$5.00 dis 10 %  | 9-10, NO. 24 4-8c<br>9-10, NO. 22 4-9c<br>0-10, NO. 23 5-0c  | 2 2                    |
| Mattocks   | inch, Nos. 13, 14 and 15. 4.8c  15 Nos. 16, 17 and 18. 4.9c  Nos. 19 and 20. 5.1c  | 3 3 3                  |
| Melasses Gates.<br>Enterprise Mfg Co 's Measuring Faucets dis 25 %   | \$\frac{2}{6}\$ " No. 22.  | 1                      |
| Stebbline Gates dis ockios tineoln's dis ockios Lincoln's dis ockios Landers. Frary & Clark's Petroleum dis ockios Brass Liquor Cocks, new list Jan. 1 188s. dis 10 % Cork Lined dis 10 % Gate Cutters. dis 20 % Meat Cutters.   | Ties.  1-toc per lb. extra will be charged for each gauge lighter than the lightest indicated.  1-toc per lb. extra will be charged for cutting floops   | 2 2 2                  |
|  | to specifica tengens.  | 2 3 3                  |
| Hale's   new list, dis 50, lo&2 cash   American   dis 25 ≤ Stuffers  | Barrel Hoops.  13 to 2 in. cut to length.  9 to 11 ibs, per set of 6 hoops   | 3                      |
| Planes.—Sandusky Tool Co   | No. 9 and heavier 3.30   | in to                  |
| Bailey (S. R. & L. Co.)  | Sheet Iron. Common. Charcoal. Juniata.   |                        |
| Plumbs and Levels. dis 65&10 % Stanley's Adjustable dis 65&10 % " Non-Adjustable dis 65&10 % Ploks.—New list   | No. 18 to 21   |                        |
| Lamont Combination   | No. 25 & 26  | ı                      |
| Razor Strops   |  | ı                      |
| # dos  | ist quality (A)  |                        |
| Lbs 50 100 150 200 250 300  Steel and Irondis 50 %; full case, dis 50%10 %  Try Squares, Stanley   | Current discount, 35 % a 37% 3.  1% by % by c.16   |                        |
| Try Squares, Stanley   | 236, 3, 338 and 234 inch   | 1                      |
| Clipper No. 5, Painted Red, Boxed and Sharpened  | 136 by 1 in 3n, for Plow Handles 3.5c<br>136 by 4 " " 3.8c<br>17 by 4 " " 3.8c   |                        |
| Saws,—Disston's Hand, Fanet and Rip. dis 20 ½ Disston's Circular. dis 40 ½ Cross-Cut No. 2, Plain Tooth. dis 40 ½ Patent Tooth. dis 40 ½ Champion Tooth. dis 40 ½ Boynton's Lightning Cross Cut, new list. dis 40 ½ Lightning Euck Saws, cross bar. dis 40 ½   | 116 by 36 3.8c 136 by 36 17 Raii. 3.8c 136 by 36 17 Raii. 3.9c 20 lbs. to the yard. 2.8c 12 12 2.8c 12 18 2.8c 13 12 2.8c 12 18 2.8c 13 18 2.8c |                        |
| Boynton's Lightning Cross Cut, new listdis 40 % "Lightning Buck Saws, cross bardis 40 % Shevels and Spades.  | and 30 lb. kali. so, each; 40 lb., boc each. 28 and 30 lb. kali. so, each; 40 lb., boc each. 31½ by % and 36 Spikes for 20 and 28 lb. Rail   |                        |
| Shevels and   Spades   Spade | 5% by 5 to 8 by 6 to 8 by  | A                      |
| Wrs. Petts' Patent   | 1% by % and 7-16 inch. 3.20 1½ by %, 7-16 and ½ inch. 3.50  Juniata Nail Rods. 6.50  | 1                      |
| No. 1   No. 2   No.  | School   S   | S                      |
| Axe Stone  | Plew Beam Iron   |                        |
|  |  |                        |

| 1              | Natis.   |     |
|----------------|--|-----|
|                | See Pittsburgh Trade Report.   |     |
|                | Best Quality Refined Cast Steel.   |     |
|                | \$\frac{\pmatrix}{\pmatrix}\$ to 2 inches, inclusive \\ \frac{10}{2}\$ to 4 inches, inclusive \\ \frac{10}{2}\$ to 3 inches \\ \frac{130}{2}\$ to 4 to 3 inches \\ \frac{130}{2}\$ to 4 \\ \frac{130}{2}\$ to 4 \\ \frac{130}{2}\$ to 5 inches \\ \frac{130}{2}\$ to 6 inches \\ \frac{130}{2 |     |
|                | 4 and 3 1/4 to 4 14 14 14 14 14 14 14 14 14 14 14 14 1   |     |
|                | 3-16 and 5% to 6 "   |     |
|                | 6 Inch 220<br>Oil Well Steel Forgings 200  |     |
| 2              | Machinery Steel  |     |
| 5              | Crucible Open Hearth   |     |
| 0              | Ordinary Sizes, % to 2 inch  |     |
| 6              | 4-16 and 214 to 3 inches 8160 60   |     |
| 6              | Round 7-5c 5c 5   |     |
| 8              | Square, Fiat and Octagon, Mc extra throughout the  | 0   |
|                | Cut to specified lengths, 1/2c extra.  |     |
| į,             | Crucible Cast Steel  |     |
|                | Crucible Cast Steel  |     |
| Ĝ              | Best. 2d Qual. 3d Qual. Open Hearth 10 21 gauge. 123/20 110 90 7c. extra for each additional gauge. Cut to multiples or specified lengths. 3/c. extra.   | i   |
| S.             | ic. extra for each additional gauge.   |     |
| g.             | Augor and Augor Planeous Cast Steel.   |     |
| 5 2 2          | Auger and Auger Bit  |     |
| á              | Auger and Auger Bit  |     |
| ź              | Side Bar8  | 1   |
| 00             | Table Cutlery, plain   | 1   |
| 00             | Pike and Cant Hook8lgc   |     |
|                | Coal and Granite Wedge. 5560<br>Roller. 8460   | 1   |
|                | Tran Spring Steel  | ı   |
|                | Forged Crank Pins and Lathe Spindles   | l   |
| E              | Roller 854c Spindle, subject to Machinery classification 554c Tran Spring Steel Forsed Crank Pins and Lathe Spindles 60c Piston Rods, plain 11c Forsed to shapes 854c Slide Bars, plain 11c Forsed to shapes 854c Craftle, Ores Beauty 11c   | 1   |
| ſ              | forged to shapes. See Crucible, Open Hearth or Bessemer, thek. Fire-Box and Flue Sheets, not less than 3-16  | 1   |
| 8              | Boller, Fire-Box and Flue Sheets, not less than 3-16   | 1   |
| _              |  | ı   |
|                | thick  | ١   |
|                | Locomotive Tank Seed   | 1   |
| C              | Square. Round, Half Round and Flat Bastard, 8-   | ı   |
| 00000          | inch and over.   | 1   |
| nd<br>pe       | Taper, 316-inch and over   | 1   |
|                | Square. Round. Haif Round and Flat Bastard. 8- inch and over. Bastard. 8- Mill Saw. 8-inch and over. Sec. Taper. 34-inch and over. Sec. Horse and Shoe Rasp. Osc. Spring Cast Steel. Sign  | 1   |
| C              | Spiral and Taper, cut to lengths   | 1   |
| C              | Tire Cast Steel.  1x3-16. \$4x3-16 and \$4.  | 1   |
| e              | 1 and 13-16x14 and 5-32, 8(X3-10 and 5-32  | 1   |
| c              | Solid Safe Cast Steel tree and Five Ply Cost Seed 7560   | 1   |
| C              | Fork and Rake, Crucibie  | 1   |
| C              | Horse Rake Steel, cut to lengths, Crucible   | ١   |
|                | Corn Stalk Cutter, beveled   | ı   |
| (C             | Beveled Hoe and Shovel Steel in Bars. 0460 Crucible Plow Steel in slabs. 8460 Bessemer and Open Hearth. 7560 Spring. 1150  | 1   |
| re<br>se       | a spiral and taper and taper ale   | 1   |
| e<br>de        | Tire, 1-16 thick and above   | ١   |
| IC.            | Plow   | 1   |
| 70             | Sleigh Shoe  | 1   |
| e<br>de        | Tire, -16 thick and above. to lengths. the Toe Calk. 4-bet Plow. 4   | 1   |
| 00<br>50       | Rolling Coulter Blanks, cut and 85cc   | 1   |
| 200            | Thrasher Steel   | 1   |
| ie             | Rolled Hammer Billets  | 1   |
| 10             | if remitted within a days.   | 1   |
| ic<br>ic       | Furnace Floor and Straightening Plates   | ı   |
| 00             | Spindles and coupling boxes  | 1   |
| ķĊ             | Sand Rolls and Pinions, large size   | 1   |
| 10             | Rolling Mill Castings under so lbs.  | 1   |
| 1C             | Spur and Bevel Wheels, large 4 C   |     |
| 50             | Pulleys up to 30 inches  | 1   |
| 70<br>30<br>30 | heavy45gc  | 1   |
| ic<br>ic<br>ic | 6 to 7 in. diam., 7 to 20 in. long.  |     |
| DC.            | 24 to 24 ln. 4 15 to 72 ln. 4  |     |
| 7C             | After Oct. 1. 1881, no discounts will be made at act   | 1   |
| 90             | Rolled Hammer Billets 45cc It remitted within 20 days per cent. discount for cash, Wells and Castings. Furnace Floor and Straightening Plates. Syntales and Coupling boxes. Sand Rolls and Platons, large size Sand Rolls and Platons, large size Sand Rolls and Platons, large size Sand Rolls and Platons, large Spur and Revel Wheels, large Capture and Revel Wheels, large Capture and Revel Wheels, large Spur and Revel Wheels, large Capture and Revel Wheels, large Spur and Revel Wheels, large Capture Castings, light Spur and Revel Storickin State Spur Spur Spur Spur Spur Spur Spur Spur  | 1   |
| 10             | B Tin Pails, Sec. W B over keg price; 1256 B Tin   | 1   |
| IC             | B TIN Palls, sc. 2 h over keg price; 121/2 h Tin sc. per b over keg price; assorted, 1 to 5 h cans, pry White Lead in barrels  | 1   |
| 30             | By white lead in barreis .6% Red Lead, very brilliant. in kegs, 70; in barreis 6% Litharge (Potter's Lead) .70; Freights equalised with all points where White Lead is made.   | 1   |
| IC             | Freights equalized with all points where White   | 1   |
| 3C             | Terms: Note at sixty days, or if paid within is days   | 1   |
| (C             | be allowed, but not otherwise.  Window Glass,  | 1   |
| 1C             | Per Box of so Feet Discount, in small lots feet a  | 1   |
| 50             | Per Box of to Feet.—Discount. in small lots. 6525 5 on single strength. 70 % on double; in car loads, 66276 5 on double.   | 1   |
| se<br>se       | Single Strength.   | 1   |
| 7e<br>Se       | Bise. AA. A B. C.  | 1   |
| -              | 1 3 X 8 LO 10 V 16   | - 1 |

An additional to per cent, will be charged for al glass more than 40 inches wide. All sizes above conches in length and not making more than 81 united inches in length and not making more than 81 united inches, will be charged in the 81 united inches bracket

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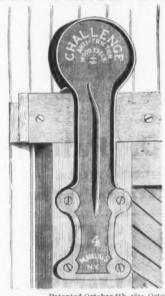
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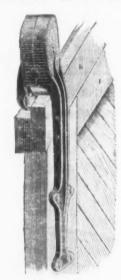
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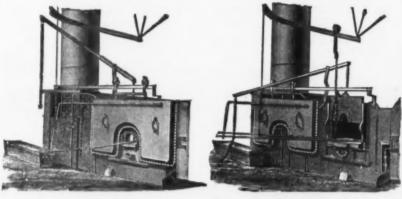
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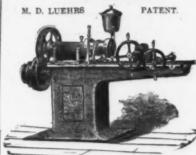
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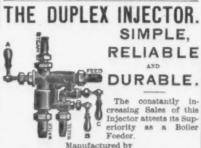
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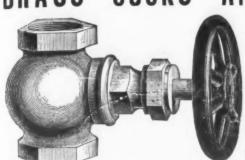
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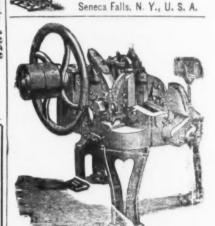


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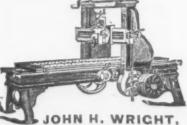


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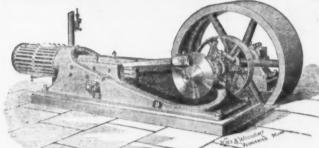


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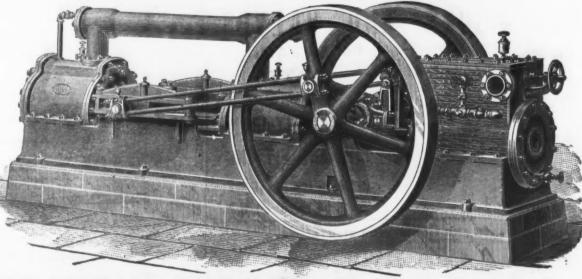
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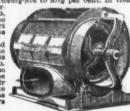


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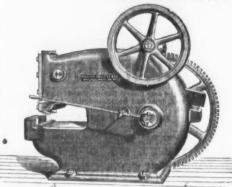






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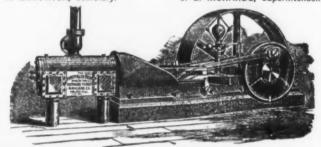
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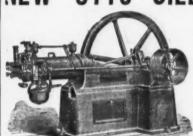
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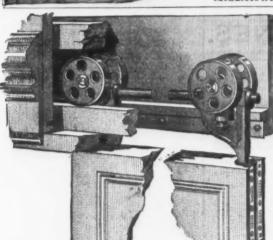
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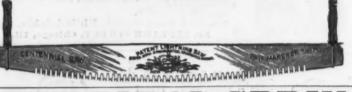


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